

**A History of the Economic and Social
Progress of European Peoples**

A History
OF THE
Economic and Social Progress
OF
European Peoples

BY
WALTER W. JENNINGS, PH.D.

*Professor of Economics
University of Kentucky*



PUBLISHED BY

SOUTH-WESTERN PUBLISHING COMPANY
CINCINNATI NEW YORK CHICAGO DALLAS SAN FRANCISCO

Copyright, 1936
By South-Western Publishing Company
Cincinnati, Ohio
All Rights Reserved

The text of this publication, or any
part thereof, may not be reproduced
in any manner whatsoever without per-
mission in writing from the publisher

To My Father
RIENZI WALTER JENNINGS

PREFACE

Of the making of books there is no end. And that statement, of course, applies to histories. For history in its widest sense is all that ever happened, not only the things of human life, but the phenomena of the natural world also. This particular text attempts to picture in clear, simple language the way people lived and worked in by-gone ages. It differs from most texts in emphasis, for, fortunately or otherwise, no two teachers see exactly alike. The author of this text believes that the beginner needs concrete facts simply stated. He knows that too many writers attempt to generalize without sufficient data, a dangerous procedure. One feature of this text not commonly found in books is the use of contemporary material, enough, the author believes, to obviate the need of a book of readings. Still a second feature which distinguishes this text is the use of more than seventy graphs, a device intended to lessen the burden of statistics. A third feature is the increasing emphasis as the twentieth century is approached. Particular emphasis is placed on the early modern period, 1500 to 1800, an era somewhat neglected in most texts. Approximately one-half of all the material is devoted to the period since 1800.

The author has used the material in part at the University of Iowa as well as at the University of Kentucky in mimeographed form for nearly fifteen years. He has varied the method of presentation, at times taking the country as a unit and at times subordinating countries to topics. The present method is a combination of the two, with emphasis on the topical arrangement in order to lessen duplication. Yet the author realizes that many teachers and pupils like to see the country stand out as the unit. In an effort to meet their wishes he has chapters, especially on agriculture, manufac-

tures, and commerce, which describe conditions in the various countries rather than in three or four important countries.

This text is intended primarily for college students who are beginning the study of the social sciences, but the author hopes that the general reader and the advanced student will find the book helpful. He has read widely in search for material and has used contemporary writers when that use was possible. The sources of information are acknowledged in the foot-notes and the selected references, and to the publishers, as well as to the authors of that material, acknowledgement is hereby made.

In writing this volume, entitled *A History of the Economic and Social Progress of European Peoples*, the author has enjoyed the assistance of many of his colleagues of the University of Kentucky, including Dr. Edward Wiest, Dean of the College of Commerce, and Professor W. A. Tolman, also of that college. Professor Tolman has read and taught the material in mimeographed form. Dr. Edward Tuthill, head of the history department of the University of Kentucky, and Dr. Charles M. Knapp and Professors Ellery L. Hall and Robert C. Lunde, also of the history department, have read and criticized the various parts of the manuscript which fall within their particular fields. The author likewise has profited from the advice of Dr. Charles Knapp of Columbia, especially with regard to the ancient period. The author also wishes to acknowledge the services of his brother, Rienzi W. Jennings, a graduate student in economics, of his sister-in-law, Mrs. Rienzi W. Jennings, a Kentucky graduate, and of Mr. Chester Jones, a Kentucky student, in criticizing the manuscript.

The merits of the work, if it has any, are largely due to those who have written and criticized; its faults are due to the author alone.

WALTER W. JENNINGS

Lexington, Kentucky
August 12, 1936

CONTENTS

PART I

CHAPTER	PAGE
I. THE SOCIAL BACKGROUND	1
The Northwest Quadrant—General Contributions of Prehistoric Culture—Early Progress—Importance of Ancient History—Life of the Upper Classes—Education—Religion—Selected References.	
II. LABOR	13
Free Labor—Treatment of Free Laborers on the Land—Treatment of Free Laborers in Industry—Free Labor in Southern Europe—Life of the Free Laborers—Attempts at Labor Organizations—Slave Labor—Sources of Slaves—Numbers and Prices—Treatment of Slaves—Acquisition of Freedom—Selected References.	
III. AGRICULTURE	29
Soil—Climate—Irrigation—Early Methods—Agricultural Improvements—Size of Farms—Crops—Animal Industries—Selected References.	
IV. MANUFACTURES	42
Introduction—Foodstuffs—The Textiles and Kindred Materials—Pottery and Kindred Products—Metal Manufactures—Seals, Glass, and Jewelry—Ungents—Weapons—Architecture—Painting—Large versus Small-Scale Manufactures—Selected References.	
V. EARLY COMMERCE	61
Introduction—Recognition of Private Property—Difficulties in Developing Commerce—The Development of Money and Interest—Early Banking—Domestic Trade—Foreign Trade—Selected References.	

PART II

VI. AGRICULTURAL ORGANIZATION	81
Early Germanic Agriculture—Other Types of Organization—Origin of the Manor—Lord of the Manor—Manorial	

CHAPTER	PAGE
Classes—Manorial Methods—Changes in the Manor—Decline of the Manor—Special Regions—Selected References.	
VII. SOCIAL CONDITIONS	102
Teutonic Characteristics—Manorial Life—Town Life—Some Drawbacks to Life—Social Conditions in the Backward Regions—Life of the Uppen Classes—Selected References.	
VIII. INFLUENCE OF THE CHURCH	117
Introduction—The Church and Labor—Influence of the Church on Agriculture—Influence of the Church on Manufactures—Early Attitude Toward Commerce—Church Teachings on Just Price and Interest—Actual Influence of the Church on Commerce—The Crusades—Some Moral and Political Results of the Crusades—Some Social Results of the Crusades—Economic Results of the Crusades—Selected References.	
IX. AGRICULTURAL AND INDUSTRIAL LABOR	135
Slavery—Transition from Slavery to Serfdom—The Black Death—Peasant Revolts in the Low Countries—Jacqueri of 1358—The English Peasant Revolt of 1381—The Rise of Free Labor—Wages and Hours of Work—Wages and Their Purchasing Power in England—Selected References.	
X. INDUSTRIAL ORGANIZATION	153
Housework—Wage-work—Nature and Origin of the Crafts—The Question of Authority—Craft Gild Organization—Objects and Methods of the Craft Gild—Merits and Defects—Manufacturing Regions—Selected References.	
XI. COMMERCE	168
Decline of Western Commerce—Commercial Conditions about 1000—Rise of the Towns—Trade of the Towns—Town Policy—The Gild Merchant—Land Trade—Fairs—Sea Trade—Development of Commercial Association—Coinage—Banking—Southern Commerce—General Nature of Europe's Eastern Trade—The Hanseatic League—Commerce of Middle Europe—Commerce of Other European Regions—Selected References.	

PART III

XII. NATIONAL CHARACTERISTICS AS VIEWED BY CONTEMPORARIES	205
General Comparisons—The English People as Viewed by Travellers—The French People of the Last Half of the Eighteenth Century—Foreign Opinion of Germans—Some	

Italian and Spanish Characteristics—Northern Characteristics as Viewed by Travellers—East Europeans as Seen by Travellers—Selected References.

XIII. GENERAL RELIGIOUS AND SOCIAL CONDITIONS 219

Declining Influence of the Church—Martin Luther and the Protestant Reformation—Spread of Protestantism—Religious Troubles in England—Religious Wars in France and Germany—The Catholic Counter Offensive—Education in England—Education in Other Countries—Glimpses at Writers—An Intellectual Revolt—Selected References.

XIV. LABOR AND LIFE 239

Slavery—Free Labor, Especially in England—Poor Relief—Life of the Laborers in England—Life in Selected Countries—Selected References.

XV. AGRICULTURE 255

Condition of the Peasants in the Balkans—Italian Peasants—Condition of the Iberian Peasants—French Peasantry—English Peasants—Condition of Peasants in Northwestern Europe—Condition of the Peasants in Central Europe—Condition of Polish and Russian Peasants—Beginnings of an Agricultural Revolution—Agricultural Improvements in England—Selected References.

XVI. INDUSTRIAL ORGANIZATION AND PRODUCTS 279

Gild Decline—Domestic System—Manufactures of Southern Europe—Manufactures of France and Flanders—English Manufactures—Manufactures of Central Europe—Backward Industrial Regions—Selected References.

XVII. COMMERCIAL ORGANIZATION 296

The Expanding Commercial World—Changes in Economic Organization—Rise and Fall of the Fuggers—The Rise of Banks and Stock Exchanges—Speculation—Money—Mercantilism—Selected References.

XVIII. FOREIGN AND INTERNAL TRADE 313

Decline of Italian Cities—Trade of the German Cities—The Rise and Fall of Portugal—The Rise and Fall of Spain—The Rise and Fall of Dutch Commerce—France's Struggle for Commercial Supremacy—The Mastery of the English—Scandinavian Commerce—Swiss Commerce—Russian Commerce—Commerce of Poland and the Balkans—Fairs and Domestic Trade—Selected References.

PART IV

CHAPTER	PAGE
XIX. SOCIAL CONDITIONS	335
Conditions in Eastern Europe—Conditions in Scandinavia—Conditions in Middle Europe—Conditions in Southern Europe—Religious Conditions—Educational Conditions—Population Growth—Emigration—Selected References.	
XX. THE WIDENING AGRICULTURAL REVOLUTION	361
Reclamation of Land—Improved Machinery—Use of Fertilizers—Agricultural Education—Agricultural Credit—Agricultural Cooperation—Government Services to Agriculture—Agricultural Policy—Enclosures—Size of Farms—Selected References.	
XXI. AGRICULTURAL CONDITIONS IN THE VARIOUS EUROPEAN COUNTRIES	385
Agrarian Movements in Great Britain and Ireland—Agrarian Conditions in Other West European Countries—The Farm Workers in Southern Europe—Russian Peasants—Conditions in East Central Europe and the Balkans—Conditions in Poland and the East Baltic and Northern Countries—The Agriculture of Southern Europe—Good Utilization of Resources—Agriculture in England and France—Middle Europe—Russian Agriculture—Selected References.	
XXII. THE BEGINNINGS OF THE INDUSTRIAL REVOLUTION	414
Early Factories—The Industrial Revolution Begins in England—Nature of the Industrial Revolution—Some Economic and Social Effects of the Factory System—Contributions of and Beginnings in Other Countries—Selected References.	
XXIII. MANUFACTURING REGIONS	432
England—Belgium—France—Germany—Austria-Hungary—Children of the Partition—Russia—Italy—Switzerland—The Backward Regions of Southern Europe—Northwestern Europe—East Baltic Countries and Poland—Selected References.	
XXIV. LABOR LEGISLATION, WELL-BEING, AND ORGANIZATION	468
Early Labor Legislation in England—Growing Agitation for Reform—Continued Oppression of the Children and the Workers—Labor Legislation Since 1833—Labor Legislation in Other Countries—Social Insurance—The Well-Being of Labor—Labor Organizations in England—Labor Organizations in France—Labor Organizations in Germany—Trade Unions in Russia—Labor Organizations in	

Italy—Labor Organizations in Other Countries—Selected References.

XXV. GROWTH OF SOCIALISM 510

Nature and Objects of Socialism—Early French Socialists—Two Mid-Century French Socialists—Later Socialists—Socialism in French Politics—Karl Marx—Growth of Socialism in Germany—Robert Owen—Growth of Socialism in England—Socialism in Russia—Spread of Socialism—Opposition to Socialism—Selected References.

XXVI. THE REVOLUTION IN TRANSPORTATION
AND COMMUNICATION 536

Canals—Wagon Roads—Rail Transportation—Ocean Transportation—Air Transportation—Communication—Selected References.

XXVII. TARIFFS AND TRADE RESTRICTIONS 567

Introduction—England—France—Germany—Italy—Russia—Other Countries—Other Commercial Barriers—Selected References.

XXVIII. FINANCIAL AFFAIRS 586

Coinage—Paper Money—Banking—Recent Financial Disturbances—Taxation—War Finance—Selected References.

XXIX. COMMERCE, FOREIGN AND DOMESTIC 616

England—Germany—France—Holland—Russia—Italy—Belgium—Switzerland—Austria-Hungary—and Three of Her Children—Iberia—Scandinavia—East Baltic Countries and Poland—The Balkans—Internal Trade—Selected References.

XXX. SOME GRAVE PROBLEMS RESULTING
FROM OR ACCENTUATED BY WAR 658

The Cost of War—Reparations and Debts—The Great Depression—The World Economic Conference—Selected References.

PART I
THE ANCIENT PERIOD

CHAPTER I.

THE SOCIAL BACKGROUND

The Northwest Quadrant.—The territory in which civilization developed and the white race gained control is bounded roughly by the intersection of the sixtieth meridian of longitude east of Greenwich and the twentieth parallel of north latitude. The two intersecting lines make the eastern and southern boundaries of a large triangle which includes northern Africa, western Asia, and Europe.

In north Africa only at Carthage where a sharp subsidence had shattered the eastern end of the Atlas Mountains and had supplied a deeply indented coast line and in the Nile Valley which the ancients regarded as the eastern boundary of Africa did great commercial powers arise. Most of the Asiatic nations formed a part of the so-called "Fertile Crescent," a sort of a semi-circle with its open side toward the south, its western end touching the southeastern corner of the Mediterranean Sea, its center due north of Arabia, and its eastern point at the northern end of the Persian Gulf. Palestine thus formed the end of the western wing, Assyria constituted a large part of the center, and Babylonia formed the eastern wing. To the east of the Crescent lay Persia, a rocky plateau; to the northwest stretched Asia Minor, a rugged peninsula dotted with fertile valleys and rich coastal plains, a sort of land bridge affording Asia access to Thrace and the Balkans; to the north rose cold and inhospitable Armenia; and to the south gleamed the blistering sands of Arabia.

The Mediterranean Sea protected the middle part of the Southern Grasslands from the glacial cold of the Ice Age, a fact of the greatest importance in explaining the development of early civilization in Egypt. To the east the cold regions bordered on Assyria and Babylonia, thus handicapping

their development. From Egypt the Tigris and Euphrates states profited, for Africa and Eurasia were connected by a land bridge. In the Old World, from the Egypto-Babylonian culture nucleus civilization gradually diffused itself, haltingly and slowly, but surely, through various regions.

The Northwest Quadrant from the days of the Stone Age at least has been inhabited by whites of widely divergent physical types. Included in the Great White Race were the Nordics, light-haired and long-headed dwellers in the Northern Flatlands; the Alpine or Armenoid groups, round-headed inhabitants of the Middle Highlands; and the long-headed, dark-haired Mediterranean races of the Southern Flatlands. Despite their tanned skins the Egyptians, the Asiatic Semites, and the peoples of Greece, Italy, and Spain belonged to this group.¹

General Contributions of Prehistoric Culture.—In the untold milleniums before the dawn of civilization, prehistoric man of the Northwest Quadrant laid the foundations upon which his descendants built. In all probability his most important single step was the development of articulate speech. When the veil which obscured the past was rent, man had developed many languages, widely divergent and hence classifiable into great groups. Prehistoric man, in the second place, learned to clothe and to house himself. In an amazing way in both attire and building he approximated modern man, and one continues to marvel at the pyramids and the great sculpture of Egypt and Mesopotamia produced at the very beginnings of civilization. A third advance in the progress of primitive man was the discovery of fire. Clothed, housed, and equipped with fire man was then ready to undertake the conquest of the middle latitudes and the Arctic regions.

Prehistoric man early began to develop implements of war and of peace. Before the dawn of history he had evolved from his club the metal battle-axe and from his rough spear the metal-tipped javelin, the arrow, the sword, and the dagger. From his bow, moreover, he had evolved various weapons, including a gigantic battering-ram. Nor had man's inventive ability been limited to weapons of warfare. He had produced

¹ See Breasted, J. H. *The Conquest of Civilization* (Harper and Brothers, New York, 1926) pp 111-117.

boats to convey himself on water and wheeled vehicles to convey himself on land. He had learned to dress skins, to weave woollens and linens, and to shape stones and bricks. He had developed the pulley and the potter's wheel.

A fifth achievement of prehistoric man was the domestication of animals. From pet wolves, probably the dog, the sole companion of man for countless generations and a great aid in the chase, developed. In time herb-eating animals, not useful for the chase but suppliers of milk and flesh, evolved. With the probable exception of the dog and the cat the domestic animals,—the cow, the donkey, the horse, and the sheep,—and the fowl are of Asiatic origin. No important animal and only a single bird, the turkey, has been developed since the dawn of history. The ownership of flocks was more in accord with the wandering life of primitive man than was the cultivation of fields which restricted somewhat his cherished freedom of movement and demanded irksome work, but in time the advantages of a constant vegetable food supply became apparent and man became an agriculturist. His agricultural plants, like his animals, were largely of Asiatic origin. With the notable exception of Indian corn and the two kinds of potatoes, all three indigenous to America, prehistoric man knew and cultivated the chief agricultural plants.

Prehistoric people also slowly evolved crude methods of government. The earliest unit was a single family ruled by a man who was master, protector, and provider. Families in time were organized into clans or tribes. When marauding bands and raids became dangerous, centralized authority was granted to the skilled fighter, thus leading to the establishment of the monarchy which was the prevalent form of government when the earliest civilizations appear.

Prehistoric man likewise knew something of the rudiments of painting, sculpture, and architecture. Pieces of reindeer horn and ivory from the cave deposits of the Stone Age give proof of man's ability and desire to draw. Discoveries in Egypt and Mesopotamia prove that the graphic arts had shown marked development before the close of the Prehistoric Age.

Prehistoric man contributed to his descendants the art of writing. Cave dwellers made crude but graphic pictures to

convey their ideas. Four thousand years before the days of Darius the Babylonians had developed a picture-writing capable of varied shades of meaning. Equally early and apparently independently the Egyptians had developed a well-nigh perfect system of picture-writing. The Hittites in Asia Minor, the Chinese, and the Mexican Indians of America likewise developed elaborate systems of picture-writing. At first picture-writing represented an idea connected with the object itself, but in time the picture represented not only an idea connected with the object but also a sound. At the beginning of their historic period the Egyptians and the Babylonians had elaborate systems of syllabics. The Chinese, too, seem, long before the beginnings of the historic period, to have possessed an elaborate system of writing. Yet the introduction of an alphabet to the exclusion of the early cumbersome methods was the feat which immortalized the Phoenicians in the historic period.²

Early Progress.—The prehistoric peoples of Northern Africa, like the other peoples of the Northwest Quadrant, passed through the Stone Age with its various subdivisions: the Early Stone Age when man made his tools by percussion or striking; the Middle Stone Age when he chipped them by pressure first on one side and then the other, thus producing the earliest spearhead; and the Late Stone Age when he made his implements by grinding first one side and then the other, thus producing hafted tools, the earliest axes pierced for handles. Apparently, too, these prehistoric peoples of northern Africa crossed into Europe by the Sicilian land bridge, thus promoting the progress of that region.

In time the plateau hunters descended into the Nile Valley and began to build mud huts and villages. In each of these small villages lived a local chief who controlled the irrigation works. To this chief each year the peasant carried a share of his grain. The record of such payments was scratched on the mud walls of the houses. Syllables and then letters followed, the Egyptians eventually attaining an alphabet of twenty-four letters, which, however, they neglected to substitute for their

² See Williams, H. S., Editor *The Historians' History of the World* (The Encyclopædia Britannica, Inc., New York, 1926) Vol. I, pp. 45-52.

pictures. The Egyptians found that they could thicken water with vegetable gums, mix in soot from blackened pots, dip a joint reed in the mixture and write. They also found that they could split a sort of river reed, called papyrus, into thin strips to provide a much better writing surface than would pottery, bone, or wood. Realizing that strips were too narrow for convenient writing they began to paste the papyrus strips together by overlapping the edges. The resulting sheet was very thin, but that defect was overcome by pasting two sheets together. A smooth, tough, pale yellow paper was thus obtained. In time the Egyptians developed on such surfaces a rapid running hand in contrast to the hieroglyphics which more nearly resembled printing.³

The Egyptians also devised methods for measuring time, at first using moon-months. Because a moon-month varied somewhat in length, they soon made their months an even thirty days, adding an extra holiday period of five days at the end of the year. The early Egyptian calendar was developed in 4241 B. C., probably the first dated event in history. Each year was assigned a name after some important event which happened in it. Lists of year names thus resulted, the Palermo Stone, in the museum at Palermo, Sicily, for example, naming some seven hundred years approximately between 3400 B. C. and 2700 B. C. In time the Egyptians then began to refer to the years of a king's reign and finally to lists of kings covering centuries of history.

Egyptian progress in other matters was of equal importance. Perhaps in the Sinai Peninsula by 4200 B. C. a wandering Egyptian banked his camp fire with little chunks of copper ore lying near his camp. The charcoal mingled with the ore, thus reducing it. The next morning, to his amazement, the wanderer may have found glittering globules, hardened beads of metal, in the embers of his fire. After repeating the experience several times, man began consciously to produce the glistening globules which were used at first only as ornaments. In time, however, he learned that the metal could be shaped into a blade which was better than his crude flint knife.

Of a somewhat similar character was the development in

³ See Breasted, J. H. *The Conquest of Civilization*, p. 54.

the Plain of Shinar at the head of the Persian Gulf. Highlanders, known as Sumerians, seized the territory and developed copper implements, clay tables, and in time a refined city life which successive hordes of invaders did not completely efface.

Importance of Ancient History.—From this Egypto-Babylonian sphere of influence culture spread gradually and irregularly through the ancient world. The zenith of that culture was probably attained by Egypt and Babylonia in the third millenium B. C. Egypt, following a period of decay, Asia Minor, and Crete attained high importance in the second millenium B. C. Assyria, Chaldea, and Persia perhaps reached the acme of civilization in the eighth, seventh, and sixth centuries B. C. Greece, the next cultural leader, dominated from the sixth century to the second century B. C. The golden days of Italy included the last century B. C. and the first century A. D. Beginning with the second century A. D. a general stagnation in creative power became observable in all of the ancient world and from the third century A. D. creative power seemed to cease, peoples reverting more and more to primitive conditions of life. Yet Rome in the West and Constantinople in the East saved the foundations of culture.

What are some of the contributions of ancient culture, gifts upon which we of today build? Ancient culture evolved our three main forms of government: the monarchy, the free state, and the federal system, or combination of free and self-governing units. Ancient writers, sculptors, and artists supplied the foundation for much of the present-day development. Philosophy and morals still pay tribute to the abstract thought of ancient philosophers, notably Plato and Aristotle. The great religions of the world had their origin in ancient times. The ancient world witnessed the development of large-scale agriculture. Although the ancient world did not develop large-scale manufactures, it did give us arts which have never been surpassed. The ancient world passed through a period of scientific agriculture, class struggles, and troubles between labor and capital. It witnessed the development of world-wide trade and commercial regulations. It gave us minted money and banking. The ancient world also supplied

us with a pattern of international-mindedness. New discoveries soon became the property of all civilized humanity, the various peoples of the Roman Empire coming into daily contact and many of them forgetting local and national interests and thinking in terms of all mankind.⁴

Life of the Upper Classes.⁵—As the peoples of the various changing political divisions of the Northwest Quadrant increased in wealth, power, and knowledge social classes arose and differences in methods of life developed. Royalty, nobility, clergy, and rich merchants, particularly in Phoenicia, Carthage, and Assyria, grasped the good things of their age often to the detriment of the peasant and the artisan classes. The upper classes supplanted the small, dirty one-room houses of thatch, mud, wood, or stone with beautiful homes, at times of brick, stone, or even marble.

The easy life of a prosperous Egyptian noble is depicted on the reliefs of the Pyramid Age. In their comfortable quarters the higher classes and some of the fortunate tradesmen and artisans in various ancient countries even possessed bathrooms with sanitary drainage. The Iraq Expedition of the Oriental Institute of the University of Chicago found at Tell Asmar, fifty miles northeast of Bagdad, an old Babylonian city level going back to the twenty-sixth century B. C. Under an important street was a sewer which had pipes connecting it with toilets and bath-rooms in order that the sewage might be led away. In Rome the rooms of some of the fine mansions were even heated by hot-air pipes, the oldest system of hot-air heating yet discovered. Fine bronze utensils much better than those generally found in our own homes appeared in the kitchens. Imported delicacies graced the tables, a jar of salted fish from the Black Sea perhaps costing eighty dollars. Gruff old Senator Cato protested against such luxuries by stating that in Rome alone did "a jar of fish cost more than a yoke of oxen." Conquests increased the luxuries, the treasures of Greece, Carthage, and Egypt adding to Roman ostentation. A citizen of Pompeii, for example, paved his dining

⁴ See Rostovtzeff, M. *A History of the Ancient World* (The Clarendon Press, Oxford, 1926) Vol. I, pp. 8-11.

⁵ See Chapter II for a discussion of the life of the working classes.

room with a fine mosaic of the conquering Alexander, a picture which had been wrested from an Alexandrian floor.

Education.—The ancient states even attempted to educate the children, archaeology having recovered for us plans of school rooms and the clay tablets common in Babylonia. Schools were used to train the children for business, the girls and boys being given special instruction in writing. The little island of Rhodes in time became a famous mercantile center, training young men in the theory and the practice of foreign commerce. Charitably-minded individuals in various states sought to help the deserving and libraries and teachers gradually became famous in various lands. To some of these famous teachers we shall now turn our attention.

In Greece civilization reached a particularly high level.⁶ Thales calculated an eclipse of the sun, and one of his pupils assumed the development of higher forms of life from the lower forms. Hecataeus, an early geographer, historian, and traveller, contributed to the development of writing. Pythagoras and other thinkers, forerunners of natural scientists, tried to find what natural laws had brought the world into existence and controlled it. Meton computed the year to within thirty minutes of the correct time. Medicine made some progress, Hippocrates being regarded as the father of scientific medicine. Egyptian papyri on the brain as the controller of the movement of the limbs had developed into the idea that the brain was the seat of consciousness and the controller of thought. Public choruses, public festivals, the work of Herodotus, Thucydides, and Xenophon, and the plays of Sophocles picturing the ideas of the old men and the plays of Euripides portraying the new religious beliefs were enjoyed by various classes.

Libraries appeared in numerous cities. Alexandria with its celebrated light house, its Royal Museum, and its famous teachers was the outstanding city of the world. Archimedes of Syracuse, educated at Alexandria, was the greatest scientist of the age. Astronomy, anatomy, library science under Callimachus, dictionaries and various books came into use. Eratosthenes, successor to Callimachus, measured the circum-

⁶ See Chapter IV for a brief discussion of painting, sculpture, and architecture

ference of the earth, laid the foundations of mathematical geography, wrote on astronomy, and founded scientific chronology. Athens, like Alexandria, was a celebrated intellectual center, famous especially for philosophy. Plato's Academy, Aristotle's Peripatetic School, Zeno's Painted Porch School, and Epicurus' Garden School all had faithful devotees.

As time passed Rome began to emulate Greece. Andronicus, a Greek slave, translated the *Odyssey*. Greek slaves became teachers and here and there young men began to finish their education at Alexandria or Athens. Polybius, a Greek hostage, a friend of the Scipios, and an eye-witness of the destruction of both Carthage and Corinth, wrote in Greek a history of the Roman wars. Plautus and Terence wrote clever comedies which led to the development of the stage. Publishers using slave laborers in back rooms developed the publishing business. Agrippa and Strabo, the latter a Greek, acquired reputations as geographers. Julius Caesar wrote a simple but accurate campaign of his Gallic wars. Cicero, to whom the book was dedicated, was the greatest orator in Roman history and perhaps the greatest master of the Latin style. Horace, the chief poet and the son of an unknown freedman, wrote beautiful poetry on Roman life, poetry unsurpassed in insight even in Greece. Vergil, the other great poet of the Augustan Age, at first copied Greek models, but won immortality through the *Aeneid*, a tribute to Augustus. The emperor himself when more than seventy-five years of age wrote a simple but impressive account of his reign, an account engraved on bronze tablets and placed before his tomb.

Poetry declined after the Augustan Age, but prose-writing was still productive. Seneca wrote essays on character and conduct. Tacitus wrote a rather frank history of Rome from 14 to 96, and a short account of Germanic peoples. The Younger Pliny and Trajan exchanged interesting letters. Plutarch at Chaeronea in Boeotia wrote his *Parallel Lives*. Arrian, another Greek governor in Asia Minor, wrote his *Anabasis of Alexander*. Pausanias wrote a guidebook of Greece. The Elder Pliny wrote a famous *Natural History* which influenced the world more than anything from the ancient world except the work of Aristotle. Ptolemy, though he made the mistake of

believing that the sun revolved around the earth, was a famous geographer. Toward the close of the second century Marcus Aurelius wrote amid the cares of military life his famous *Meditations* which inspire the reader to a better life. Meanwhile a Christian literature, represented by the Bible, for centuries and still the best seller, and the *Confessions* and *The City of God* by St. Augustine, was rising.

Religion.—The remains left by primitive man and unearthed by the archaeologists show that early man had a religion and believed in some sort of future life. Such remains were supposed to help him in that future life. Yet his worship was very primitive, the deification of natural forces such as springs, fire, or heavenly bodies and the worship of numerous animals, reptiles, or even insects. Often, too, the worship was peculiar to a small group, or the clan.

In Egypt there developed the idea of a distant heaven whose inhabitants possessed all the joys but none of the sorrows of earthly life. To this heaven went only the ghosts who knew the necessary religious formulas and who had received the approval of the judges. Among the better classes, too, the approximation of the Jewish Jehovah developed. Yet comparatively few people reached the religious ideals of Ikhnaton who, about 1375 B. C., expressed praise of the Sun god as a kind Father who created all life and maintained his creatures by his goodness.

The Babylonians and the Assyrians had deep religious convictions. A Babylonian poem on the creation of the world tells how Marduk, striving mightily with Tiamat and his weird and terrible beings, personifications of primitive chaos, evolved order. Babylonian religious literature also refers to a flood, and to one man who was saved in an ark, by divine inspiration. The Assyrians attributed all success to Asshur, their supreme god, and, unlike the Egyptians but similar to the Jews, seemed to have a strong sense of guilt.

Closely related in principles to the Jewish religion and Christianity was the beautiful religion of Zoroaster. He believed that man was responsible for his actions and taught that if he fought evil, confessed God, and lived a pure life, he would, after four periods of three thousand years each when

good had defeated evil and Ormuzd had overcome Ariman, be assigned at the Last Judgment after the general resurrection to a place among the righteous. The highest point in the worship of antiquity was the Jewish religion with its teaching—God is one, a spiritual power, creator and governor of the world. Early Jews did not hold to the tenet of a future life, but they later adopted it.⁷

Most religions of the ancient world were allied with natural forces, animals, ancestors, ghosts, and demons. In Babylonia the degrading, lustful hat festival appeared and various other countries revealed licentious acts glorified under the name of religion. Human sacrifices appeared in Phoenicia, Carthage, and elsewhere.⁸ The beliefs of the Assyrians failed to modify their cold-hearted, calculating, inventive cruelty toward captives, or their desire for gain at any cost—to others.

In Greece religion long remained a crude affair. With the belief in Zeus, Poseidon, Apollo, Ares, Hephaestus, Hermes, Hera, Athena, Artemis, Aphrodite, Demeter, and Hestia and their passions and lusts we are not here concerned, save as it reflects Greek passions and lusts. The Greeks believed in terrible punishments for a few great offenders, in supreme joy for a few favored, but in a drab after-life for the vast mass of men. Right conduct was scarcely considered by the people and pleasure was worshipped by many. Yet Hesiod raised his voice in behalf of the oppressed, and Socrates and Plato, too, tower high, even above some of the Jewish and Christian moralists.

Early Roman religion centered in the home and the daily work, each house door possessing its god Janus and each hearth fire its goddess Vesta. Tellus was the god of soil, Saturn of sowing, Ceres the goddess of grain-sowing, Venus of harvest, and Terminus the god of boundaries. Mars, the fabled father of the legendary Romulus, was the favorite god of Rome. Jupiter, or the Greek Zeus, was the head of the gods, and many other Greek gods and goddesses were recognized under slightly different names. Worship, being very

⁷ See Rostovtzeff, M. *A History of the Ancient World*, Vol. I, pp. 167-173.

⁸ See de Prorok, Byron Khun "The Excavations of the Sanctuary of Tanit at Carthage" in *The Annual Report of the Smithsonian Institution* (Government Printing Office, Washington, 1925) pp. 569-574.

ceremonial, a departure from the rules meant failure. Pontiffs had general charge of the ceremonial state religion and also of science, and the college of augurs translated the reputed will of the gods by studying the flight of birds and the color and the size of the entrails of animals. All public votes, elections, and battles were held under favorable auspices, the sky at times being scanned until the proper omen came and animals being sacrificed until the proper signs appeared. The unsettled beliefs occasioned by conflicting religions and the transfer from inferior religions to higher ones undermined morale temporarily. Divorce, once virtually unknown, became common, marriage itself almost proving sufficient ground for divorce. Wealth became an object of worship.⁹

SELECTED REFERENCES

Breasted, J. H. *The Conquest of Civilization* (New York, Harper and Brothers, 1926) Chapters I, VII, XV XXI, and XXV.

Duff, J. Wight, in *The Cambridge Ancient History* (Cambridge, The University Press, 1932) Vol. IX, Chapter XIX.

Evans, Mary. *Costume Throughout the Ages* (Philadelphia, J. B. Lippincott Company, 1930) Chapters I-III.

Giles, Peter, in *The Cambridge Ancient History* (New York, The Macmillan Company, 1924) Vol. II, Chapters I and II.

Gulick, Charles B. *The Life of the Greeks* (New York, D. Appleton and Company, 1902) Chapters V-XIV.

Olmstead, A. T. *History of Assyria* (New York, Charles Scribner's Sons, 1923) Chapters XLIII-XLV.

Osborn, H. T. *Man Rises to Parnassus* (Princeton, The Princeton University Press, 1927) Chapters I, II, and IV.

Rostovtzeff, M. (J. D. Duff Translation) *A History of the Ancient World* (Oxford, The Clarendon Press, 1926-1927) Vol. I, Chapters XI, XVI, XX, and XXIII and Vol. II, Chapters XV and XXIII-XXV.

⁹ See Burris, Eli E. "The Religious Life on a Roman Farm As Reflected in the *De Agricultura* of Marcus Porcius Cato" in the *Classical Weekly*, October 24, 1927, Vol. XXI, pp. 27-30. This paper, edited by Professor Charles Knapp of Columbia, is full of excellent material on the ancient period, especially Rome.

CHAPTER II.

LABOR

Free Labor.—In the earliest stages of history all individuals were laborers under the compulsion of dire necessity. As collectors, fishers, and hunters they strove punily with the forces of nature in an effort to keep their souls and bodies together. In time individual selfishness gave way to family selfishness. As the family groups grew larger, the work of some of their members seemed less necessary. Yet there were small families anxious for help. Into such families were taken superfluous members of the large families. Their pay, because of the small demand for workers and the absence of money as we understand the term, was little more than food, clothes, and lodging.

With the increase in population and the development of agriculture, manufactures, commerce, and finance the supply of laborers and the demand for laborers waxed strong. Some men began to specialize in the production of foodstuffs, other men began to make special articles, other men began to sell various products, and still others began to finance the production and the distribution of the fruits of labor. Within the different occupations, moreover, subdivisions occurred. In agriculture, for example, some people specialized in grain production, others in fruits, and still others in the development and the care of the beautiful pleasure gardens of antiquity. In manufactures some men specialized in metal goods, others in textiles, and still others in ceramics. In commerce some workers specialized in the selling of foodstuffs, others in the selling of agricultural implements or weapons, and still others in the selling of clothing. In all of the countries of the Northwest Quadrant free laborers, handicapped by the competition of slave laborers, appeared.

Treatment of Free Laborers on the Land.—Man's inhumanity to man was never more clearly manifested than in the ancient period. To the unfortunates in such regions as Egypt and Mesopotamia where the control of rivers was a life-and-death matter forced labor seemed natural. The payment of a small rent or tax for the benefits derived from the extensive irrigation system likewise seemed natural. In Egypt lands were measured with great care and a certain percentage of the yield, dependent upon the height of the flood and the benefit to the land, was demanded of each tenant. Quotas were often so high that even the severest beatings could not force payments. Many of those who were unable to pay were compelled to work out their taxes, laboring side by side with slaves and even criminals.

In Egypt the king regarded himself as the owner of the soil, but in Babylonia he recognized private ownership of land. In the East in particular the king, the temples, and the higher classes usurped the lordship of the soil. When the government so ordered the unfortunates drudged on the bridges and roads, the irrigation systems, the palaces and temples, and even carried burdens as transport workers.¹ Even the Hebrews revealed the odium in which manual labor was held. Isaiah refers to the new kingdoms in which the hardest work would fall to the Gentiles and *Ecclesiasticus* 38:32, 33 compares cultured leisure with manual labor.

In Carthage and in southern Europe also the treatment of agricultural laborers was harsh. The free peasants of Carthage were depressed into the condition of fellahs, or serfs, being required to pay heavy tribute. Greece in general and Athens in particular employed hired laborers, both citizens and non-citizens, on the farms. In Rome prior to 493 B. C. yeomen lost their little farms and even their liberty for the inability to pay their debts. The Licinian Laws of 367 B. C., the legislation of Tiberius Gracchus in 133 B. C., and the sale of grain at half price by Gaius Gracchus gave little permanent relief. When the slave plantation was replaced by the large farm worked by free laborers or tenants on lease, the laborers grad-

¹ See Rostovtzeff, M. *A History of the Ancient World*, Vol. I, pp. 147, 148

ually through debt and inertia became attached to the soil as coloni. Free labor had merged into serfdom.

Treatment of Free Laborers in Industry.—Free labor to most of us, however, suggests not agricultural workers, but industrial workers. In industry, too, the workers suffered. Workshops were owned by wealthy merchants, the temples, or the king who dominated the artisans as mere serfs or slaves. Trade was slightly more independent of the large landowners, the temples, and the king, but the small trader unless an agent of one of those powers was compelled to pay taxes which seemed numerous and vexatious, and frequently destructive.² Of conditions in Egypt, a scribe gives us the following picture:

I have never seen a blacksmith on an embassy nor a smelter sent on a mission,—but what I have seen is the metal worker at his toil—at the mouth of his forge,—his fingers as rugged as the crocodile,—and stinking more than fish-spawn.—The artisan of any kind who handles the chisel,—does not employ so much movement as he who handles the hoe;—but for him his fields are the timber, his business is the metal,—and at night when the other is free,—he, he works with his hands over and above what he has already done,—for at night, he works at home by the lamp.—The stone cutter who seeks his living by working in all kinds of durable stone,—when at last he has earned something—and his two arms are worn out, he stops;—but, if at sunrise he remains sitting,—his legs are tied to his back.—The barber who shaves until the evening.—When he falls to and eats, it is without sitting down—while running from street to street to seek custom:—If he is constant (at work) his two arms fill his belly—as the bee eats in proportion to its toil. Shall I tell thee of the mason—how he endures misery? Exposed to all the winds while he builds without any garment but a belt—and while the bunch of lotus-flowers (which is fixed on the (completed) houses—is still far far out of his reach,—his two arms are worn out with work; his provisions are placed higgledy-piggledy amongst his refuse,—he consumes himself, for he has no other than his fingers—and he becomes wearied all at once.—He is much and dreadfully exhausted—for there is (always) a block (to be dragged) in this or that building,—a block of ten cubits by six,—there is (always) a block (to be dragged) on this or that month (as far as the) scaffolding poles (to which is fixed) the bunch of lotus-flowers on the (completed) houses.—When the work is quite finished,—if he has bread, he returns home, and his children have been beaten unmercifully (during his absence)—The weaver within doors is worse off there than a woman;—squatting, his knees against his chest,—he does not breathe.—If during the day he slackens weaving,—he is bound fast as the lotuses of the lake;—and it is by giving bread to the doorkeeper, that the latter permits him to see the light.—The dyer, his fingers reeking—and their smell is that of fish-spawn—his two eyes are oppressed with fatigue,—his hand does not stop,—and, as he spends his time in cutting out rags—he has a hatred of garments.—The shoemaker is very unfortunate;—he moans ceaselessly,—his health is the health of the spawning fish,—and he

² See *Ibid.*, Vol. I, pp. 147, 148.

gnaws the leather.—The baker makes dough, subjects the loaves to the fire,—while his head is inside the oven,—his son holds him by the legs;—if he slips from the hands of his son,—he falls there into the flames.³

At a somewhat later period, when the Egyptians had reduced the Israelites to bondage, the suffering of the toilers, virtual slaves, seemed equally great, for we note from *Exodus* 5:11-18 that they were beaten and their labor was increased. Probably, however, the treatment of unskilled laborers was harsher than the treatment of the skilled artisans. In all parts of the ancient world, including even Carthage, the products of the skilled blacksmiths, brickmakers, coppersmiths, glass-blowers, goldsmiths, potters, shoemakers, tailors, textile workers, and upholsterers show that free labor was not entirely suppressed.

Free Labor in Southern Europe.—In all probability more than half of the laboring population of Athens consisted of wage-earners who had attained economic independence. Solon attempted to attract foreign workers. The fine buildings erected by Pericles were constructed chiefly by free workers or resident aliens. Men, driven from the farms by the growth of capitalistic agriculture, also swelled the ranks of the free laborers. Yet at times because of the scarcity of skilled workers slave masons and free masons, toiling side by side, performed the same work and received the same pay.

Early Rome had a system of free labor which lasted until Rome fell. Debt slavery led to a general strike in 493 B. C. and continued cruel treatment provoked the demand for written laws and the assurance of fair treatment.⁴ A second general strike resulted in the adoption of the Twelve Tables about 449 B. C. As the land passed into the hands of the capitalists, dispossessed farmers swelled the ranks of the town artisans. Scheming politicians, at first hopeful for votes and then fearful of reprisals by an idle mob, vied with each other in showering favors on the populace. The corn law of Gaius Gracchus, allowing grain at half price, degenerated into free grain, pork, oil, perhaps wine, clothes, and long-sleeved tunics.

³ See Maspero, G. *Dawn of Civilization* (Society for Promoting Christian Knowledge, London, 1901) pp 311-314.

⁴ Such demands played a part in bringing on the codes of such famous lawgivers as Hammurabi, Lycurgus, Draco, Clisthenes, and Solon.

At one time nearly a third of a million people in Rome received free grain. Vespasian, 69-79 A. D., a friend of the people from whose ranks he had risen, refused a labor-saving device for transporting heavy columns because it would take work from the restless and usually more or less idle Roman mob. The morale of the people gave way and that fact was largely responsible for the disappearance of Roman civilization.⁵

Life of the Free Laborers.—The most important things for the laborer relate to wages, conditions of work, and home life. Early payments consisted primarily of food and clothing. In the early part of the fifth century B. C. in Athens the day laborer made from six to ten cents a day, the skilled craftsman received about twenty cents a day, and the architect, if lucky, made about thirty cents a day. In Rome during Cicero's age wages seem to have been from twenty to thirty cents a day. In Christ's parable of the vineyard, applying especially to Palestine, they seem to have been about sixteen cents a day in our money of a normal period. In Egypt under the empire wages rose somewhat, but as in the South and East generally they were lower than in Europe except when apparently raised by the debasement of the coinage.⁶ During Diocletian's reign tables of about 301 A. D. show daily wages at Rome of ten or eleven cents for unskilled laborers and thirty-two cents for painters with most craftsmen receiving in the neighborhood of twenty-two cents.

The size of a worker's wage is not so important as the amount of the commodities which it will purchase. The worker cannot eat his money, sleep on his money, or wear his money. He eats what that money will buy, he sleeps in and on what that money will purchase, and he wears what that money will obtain. This power of a wage to command the necessities of life we term the real wage. In Athens, by the Solonian legislation, a medimnus of barley, about six pecks, had been counted as a drachma, about eighteen or twenty cents. Barley was thus about twelve cents a bushel. By the close of the fifth

⁵ The strife between Pericles and Cimon in Athens for public favor also tended to lower the morale of the people.

⁶ Debasement of coinage means a decrease in content of pure metal and an increase in the amount of alloy, or less valuable material, going into the coin. Prices of commodities naturally rise; hence the laborer fails to profit. In truth, he probably loses because prices are often raised higher than the present debasement justifies in the belief that the policy of debasement will continue.

century B. C. it had doubled in price. Sheep and cattle showed a much greater rate of increase. Clothing, furniture, and other articles likewise increased in price. From the meager statistics available the cost of living seems to have doubled or even trebled in a period of two centuries.⁷ Yet a well-to-do citizen even late in the fifth century B. C. could support his family on ten or twelve cents a day. With the increase of money, the migration of dispossessed farmers to the towns, and the growing competition of slaves in agriculture, industry, and commerce the well-being of the workers deteriorated, for wages and employment did not keep pace with price advances.

Even if the free worker of Rome was willing to fall back on such demoralizing aid as free grain, he was compelled to cut his budget to the lowest point. He needed about sixteen bushels of wheat yearly, entailing a cost, at seventy-five cents a bushel, of about twelve dollars. Oil and wine, each costing about one cent a day, added about seven dollars to his annual expenditures. Vegetables cost approximately the same. Cheese perhaps cost him about four dollars a year. Two tunics each year and one pair of sandals increased his expenditures by \$2.50. A room in a shabby tenement house cost him fifteen or twenty dollars a year.

The reforms of Diocletian aided the laboring classes. Although in 301 A. D. a painter could not buy a bushel of wheat with the proceeds of a day's labor, he could buy a peck of wheat, a pound of mutton, a dozen eggs, a quart of milk, and a pound of cheese. An unskilled laborer with a day's wages could purchase exactly one-third as much as could the painter.⁸ On the whole at that time a living could be made almost as easily as now, provided, of course, that regular employment could be secured.

Employers, amply supplied with slave laborers, not alone sought to keep wages near the cost of the maintenance of a slave, approximately a dollar a week in Rome of the first century B. C., but gave poor conditions of work, long hours under insanitary conditions. In the ancient world in general hours

⁷ See Tod, Marcus N. *The Cambridge Ancient History* (The University Press, Cambridge, 1927) Vol. V pp. 23-26

⁸ See Chaplin, F. S. *An Historical Introduction to Social Economy* (The Century Company, New York, 1917) p. 109, for a table of wages and prices

of work outdoors were limited by daylight and indoors by the possibility of lighting. Yet even in the Greek silver mines, judged by the clay lamps, the workers toiled not more than ten hours a day. In the small Greek establishments, moreover, hours were somewhat elastic, being shifted to suit the convenience of the few workers.

In Egypt and many other countries of early times the peasants did not live on the farms, but were crowded into the worst quarters of the towns with other working classes or into villages. A poor man's house was a mud hut of one room; it was separated from its neighbors on either side by one mud partition. The various huts were constructed in long rows along crooked alleys filled with refuse of all kinds. In Greece generally the poor people had only one or two rooms, and their simple homes were crowded together on city streets which were narrow, irregular, and littered with refuse. In the Roman one-room house stood the spinning outfit of the wife, the bed of the citizen, and the cooking utensils and various belongings of the family. A square hole in the roof sometimes allowed the smoke to escape, but the begrimed appearance of everything, giving the name *atrium* or black to the room, showed that the escape of smoke was not the natural thing.⁹

Attempts at Labor Organizations.—The predominating agricultural life, small-scale industry, and the sparsity of population coupled with poor facilities of communication and transportation and governmental objections lessened the possibility of successful organizations. The presence of slaves, moreover, meant that strikes had little chance of succeeding.

Professor W. Cunningham, speaking of Egypt in particular, refers to artisans organized into corporations which were not guilds, but "gangs of men working under a contractor."¹⁰ Organizations, or guilds of workers, however, were known in the East, in Greece, and in Rome. The oldest guilds of Rome,—goldsmiths, coppersmiths, builders, dyers, leather workers, tanners, potters, and musicians,—dated back to the days of

⁹ See Chapter I for a discussion of the homes of the rich.

¹⁰ See *Western Civilization in Its Economic Aspects* (The University Press, Cambridge, 1911) Vol. I, pp. 17-22.

Numa, but, in general, the Roman government frowned upon any association likely to bring people together.¹¹

Despite imperial opposition the gilds continued to grow, even Septimius Severus proving unable to stop them in the army, and by 150 A. D. those with a well-recognized legal existence included the old ones just mentioned, the farmers of taxes, workers of gold, silver, and salt mines, the bakers, the Tiber boatmen, and a few others. Trades in time revealed a considerable amount of specialization or subdivision. There were, for instance, several kinds of carpenters, shipbuilders, lumbermen, and watermen. Union and non-union lines, too, were drawn, and as early as 43 B. C. the Roman pall bearers, "bitterly resented it, if any 'non-union' outsider ventured to put his shoulder to a bier."

Marcus Aurelius was probably the first emperor to drop opposition and definitely to favor the gilds. To them and to the funeral societies, or cooperative organizations for burying the dead, he gave the right to receive legacies and to possess property, capital, and slaves. During the late empire the gilds were used as a governmental taxing-agency. Because, when a man left the gild, the government lost the tax, he was refused release. If he fled, he could be reclaimed the same as any other fugitive from servitude.

In late Rome the desire for a decent burial, rather than the effort to increase wages or to better economic conditions, led to numerous associations and gave rise to many friendly meals. The banquet fares were usually plain; in one case, for example, the menu was a bottle of wine, a loaf of bread, and four sardines for each guest. At Lanuvium a certain "Funeral Collegium" required a membership fee of one hundred sesterces and an amphora, or about six gallons, of good wine; in addition dues of six asses monthly were required. The funeral benefit amounted to 250 sesterces, but an amount one-fifth as great was to be divided among all the members who attended the funeral. If a man killed himself, he was not entitled to a society funeral, but if he died at a distance from Lanuvium, the undertaker was paid.

¹¹ See Acts 18 23-41. Over two hundred years later the mint artisans united in a semi-political riot in which thousands of citizens and soldiers lost their lives.

Slave Labor.—Even more important than free labor in ancient times was slave labor. In the earliest days slavery was incidental and for a long time the number of slaves was small. Perhaps the institution began when the women of the conquered tribe were kept alive as the spoils of war, but the enslaving of men for economic reasons could not occur until industry had advanced to some extent and did not reach "its full magnitude as an institution" until the agricultural stage. Conquered men were then spared, being compelled to do the work of women. Although this practice was considered very degrading, it, nevertheless, was preferred to death by most captives. Later, after slavery had become established fairly well, the conquered were spared as captives and the last subjugated became the lowest class.

Slaves created the oldest monuments of human labor in Egypt. The founder of the Jewish race was a slaveholder and a purchaser of slaves, and when the Hebrews broke loose from Egyptian bondage, they planted slavery in Canaan. Tyre, the oldest commercial city of Phoenicia, like Babylon, was a slave market. In Greece and Rome also slaves were common.

Occasionally, however, voices were raised against the institution. Thus, in the fourth century before Christ a teacher by the name of Alcidamas urged: "God has sent forth all men free; nature has made no man slave." Philemon in one of his comedies said: "Nature makes no slaves." Aristotle recognized "living chattels," but urged that the prize of freedom should be held before the eyes of all slaves. Seneca asked: "Slaves are they?" and replied, "Say that they are men." The orator Dion condemned hereditary slavery as at war with right. And Ulpian declared: "By the law of nature, all men are born free." Even the Roman digests pronounced slavery "contrary to nature."

Sources of Slaves.—War at times perpetuated slavery. Egypt and other ancient countries waged wars primarily to replenish the labor supply. Alexander the Great, after the capture of Thebes, sold about thirty thousand women and children into slavery. The Roman conquests supplied numerous slaves. Paulus in Epirus took about 150,000 slaves. Caesar in Gaul killed one million of his three million oppon-

ents and captured another million. The Jewish wars yielded nearly a hundred thousand slaves. Closely akin to war was kidnaping or piracy. This source of slaves was especially prolific in the early period. Skirting the coasts in swift sailing boats and searching carefully for unsuspecting women and children the kidnapers plied their nefarious traffic, at times under the guise of trading. Homer refers to the plans of a Phoenician nurse to kidnap Eumaeus:

"Him, childlike wandering, I will lead away.
A noble prize, and to your ship convey."

Another source of slavery was the sale of children by parents with large families or with pressing obligations or with little affection. In all of the countries the law was a feeder of the institution of slavery. For at one time or another throughout the Northwest Quadrant the debtor, and even his family, if necessary, could be sold to satisfy the creditor. By the early Accadian law a son who disowned his father might be ordered shorn and sold as a slave. Here and there, too, criminals were condemned to slavery. Still another feeder of slavery was heredity. In general individuals who were born slaves remained slaves. Masters at times bought wives for the slaves in order to increase valuable property. Slaves, like stock, were thus bred for the market.

Traders from all countries, especially from Phoenicia, toured the markets looking for likely slaves on whose purchase and sale a profit might be made. When such traders could treble or even double the price paid, they conducted a profitable business. Thrace, Syria, Pontus, Phrygia, Paphlagonia, Lydia, Galatia, and Cappadocia were the chief sources from which the Greeks drew their slaves. Athens obtained part of her revenue from taxes on slaves and naked humanity, as in other places, was exposed in her market place for examination. Rome drew on the same sources as Greece for slaves, but she imported slaves regularly also from Africa, Gaul, and Spain. In Rome the business was so important that the government levied import duties on slaves and also an auction tax of two to four per cent upon their sale.

Numbers and Prices.—In all probability slaves outnumbered the free citizens. They labored on the farms and in the shops; they toiled in the galleys, under the loads of the transport systems, on the public buildings and roads, and in the mines; they supplied schooling and entertainment; they were secretaries, stenographers, librarians, and valets. In short, in virtually every occupation known to antiquity slaves were found. Slaves were owned by the state and by the temples as well as by individuals.

The subject population of Sparta was eight to ten times the number of the Spartans, or if only the Helots, the regular slaves, are considered, four or five to one. During the Age of Pericles a mixed Athenian crowd of ten would have included about four slaves and one or two metics. Conservative estimates place the slave population at two-fifths of the total for all Greece in the fifth century B. C. Most of these slaves were employed in manufactures and commerce, but many were engaged in domestic service, agriculture, and the mines. Although ownership was fairly general, rich men occasionally counted their slaves by the hundreds, Nicias, the Athenian general, working a thousand in the mines.¹³ In Rome individual holdings were often high. Pliny tells of a freeman of the Augustan Age who left 4116 slaves.¹⁴ Ingram believes that the ratio of slaves to freemen, 146 B. C. to 235 A. D., was about three to one and that the total number of slaves in Italy during the reign of Claudius, 41 to 54 A. D., was nearly twenty-one millions.

The chief factor affecting the price of slaves was the relation between supply and demand. When the supply was large and the demand was slight, the price was low. Such was often the case in Mesopotamia. A deed of Nebuchadnezzar's reign shows the sale of a female slave for fifty cents. In the Roman camps after successful battles slaves often sold for less than a dollar in our money. Age, looks, character, and ability all affected the price. A young woman, beautiful, talented, and virtuous, commanded a high price. A man, young, strong, tractable, and capable, also brought the top market

¹³ In Assyria thirty was a large number for any one man to own.

¹⁴ In Carthage, it is said, individual citizens occasionally owned twenty thousand slaves. If that is a fact, such ownership was confined to a few wealthy merchant princes.

ents and captured another million. The Jewish wars yielded nearly a hundred thousand slaves. Closely akin to war was kidnaping or piracy. This source of slaves was especially prolific in the early period. Skirting the coasts in swift sailing boats and searching carefully for unsuspecting women and children the kidnapers plied their nefarious traffic, at times under the guise of trading. Homer refers to the plans of a Phoenician nurse to kidnap Eumaeus:

"Him, childlike wandering, I will lead away.
A noble prize, and to your ship convey."

Another source of slavery was the sale of children by parents with large families or with pressing obligations or with little affection. In all of the countries the law was a feeder of the institution of slavery. For at one time or another throughout the Northwest Quadrant the debtor, and even his family, if necessary, could be sold to satisfy the creditor. By the early Accadian law a son who disowned his father might be ordered shorn and sold as a slave. Here and there, too, criminals were condemned to slavery. Still another feeder of slavery was heredity. In general individuals who were born slaves remained slaves. Masters at times bought wives for the slaves in order to increase valuable property. Slaves, like stock, were thus bred for the market.

Traders from all countries, especially from Phoenicia, toured the markets looking for likely slaves on whose purchase and sale a profit might be made. When such traders could treble or even double the price paid, they conducted a profitable business. Thrace, Syria, Pontus, Phrygia, Paphlagonia, Lydia, Galatia, and Cappadocia were the chief sources from which the Greeks drew their slaves. Athens obtained part of her revenue from taxes on slaves and naked humanity, as in other places, was exposed in her market place for examination. Rome drew on the same sources as Greece for slaves, but she imported slaves regularly also from Africa, Gaul, and Spain. In Rome the business was so important that the government levied import duties on slaves and also an auction tax of two to four per cent upon their sale.

Numbers and Prices.—In all probability slaves outnumbered the free citizens. They labored on the farms and in the shops; they toiled in the galleys, under the loads of the transport systems, on the public buildings and roads, and in the mines; they supplied schooling and entertainment; they were secretaries, stenographers, librarians, and valets. In short, in virtually every occupation known to antiquity slaves were found. Slaves were owned by the state and by the temples as well as by individuals.

The subject population of Sparta was eight to ten times the number of the Spartans, or if only the Helots, the regular slaves, are considered, four or five to one. During the Age of Pericles a mixed Athenian crowd of ten would have included about four slaves and one or two metics. Conservative estimates place the slave population at two-fifths of the total for all Greece in the fifth century B. C. Most of these slaves were employed in manufactures and commerce, but many were engaged in domestic service, agriculture, and the mines. Although ownership was fairly general, rich men occasionally counted their slaves by the hundreds, Nicias, the Athenian general, working a thousand in the mines.¹³ In Rome individual holdings were often high. Pliny tells of a freeman of the Augustan Age who left 4116 slaves.¹⁴ Ingram believes that the ratio of slaves to freemen, 146 B. C. to 235 A. D., was about three to one and that the total number of slaves in Italy during the reign of Claudius, 41 to 54 A. D., was nearly twenty-one millions.

The chief factor affecting the price of slaves was the relation between supply and demand. When the supply was large and the demand was slight, the price was low. Such was often the case in Mesopotamia. A deed of Nebuchadnezzar's reign shows the sale of a female slave for fifty cents. In the Roman camps after successful battles slaves often sold for less than a dollar in our money. Age, looks, character, and ability all affected the price. A young woman, beautiful, talented, and virtuous, commanded a high price. A man, young, strong, tractable, and capable, also brought the top market

¹³ In Assyria thirty was a large number for any one man to own.

¹⁴ In Carthage, it is said, individual citizens occasionally owned twenty thousand slaves. If that is a fact, such ownership was confined to a few wealthy merchant princes.

price. A young woman recognized as a good breeder commanded more than the average price. The dissolute and luxurious Romans were willing to pay as high as five thousand dollars for a beautiful boy eunuch or an excellent cook because such individuals were comparatively scarce in plutocratic Rome.

In general the price of slaves rose from East to West and South to North. In late Babylonian history a woman and young child could be purchased for twenty or twenty-five dollars and a man and his wife could be obtained for forty dollars or less. The normal price in Greece in the sixth century B. C. was about thirty-five dollars per adult slave.¹⁵ Of course, skilled artisans and couriers, like musicians, dancers, and beautiful female slaves, at times brought \$150 in Greece, or three to five times the ordinary price for the average unskilled laborers. Slaves in Rome commanded the highest prices in the ancient world, averaging not far from \$200 in our money of a normal period for the first centuries B. C. and A. D. The diminution of slaves through decreased conquests naturally led to high prices.

Treatment of Slaves.—In all the countries of the ancient world the treatment of slaves depended to a considerable extent upon the type of work and the character of the master. Slaves on governmental projects, on the farms, and especially in the mines usually experienced the worst treatment. Domestic slaves, though subject to the whims and lusts of capricious masters and mistresses, had an easy time in comparison with the slaves just mentioned. Aside from Carthage and Egypt treatment was usually fair in the Near East. From the earliest history of Mesopotamia the slave was protected by legislation. If some one killed the slave of another, he was required to pay the owner for him. Slaves in 546 B. C. could appear in lawsuits. In the later period, also, slaves, under some circumstances, could engage in business on their own account. Slaves could even own slaves and attest deeds. Some people believed that the Assyrian slave "probably had more real freedom than any other who ever bore the name of slave."

¹⁵ As a rule men brought a higher price than women unless the women were especially talented or beautiful, probably both.

The slaves in Assyria were usually married, owned their own homes, conducted their own businesses, and paid their annual tributes to their masters.

In Greece, as in other regions, the treatment varied. Any Spartan could kill a slave without trial and on one occasion alone, according to Thucydides, two thousand ambitious slaves were murdered. Yet their economic position was not particularly bad. Their tribute of produce to their masters was strictly limited and they had complete liberty to improve their holdings and to accumulate property. The Athenian silver mines which employed about twenty thousand slaves in 431 B. C. probably witnessed the worst treatment of slaves in the Greek world. The slaves were worked in chains and were branded and treated more like beasts than humans. The atrocities practiced on these poor slaves led to revolts, the most disastrous occurring in 413 B. C. At a critical time in the Peloponnesian War twenty thousand workmen made a desperate and successful rush to the Spartan lines. The loss of these workers depressed the Athenians and encouraged the Spartans, proving a very important factor in the ultimate success of the latter. Yet harsh treatment continued and a bloody strike occurred in 133 B. C., ending as usual in the defeat and barbaric punishment of the strikers.¹⁶ Yet the Greeks in general and the Athenians in particular treated their slaves well. The slaves in Athens, in fact, were often so well treated that they could scarcely be distinguished from citizens.¹⁷

Although early Roman law allowed the master the life-and-death power over his slaves and although penalties were invariably more severe for guilty slaves than they were for guilty freemen, the domestic servants who gave the services of the bath, the toilet, the kitchen, and the parlor and even served as doctors, teachers, artists, copyists, librarians, and secretaries seem to have been treated fairly well.

Such, however, was not the case with all slaves. Even Cato, "the model Roman," believed in working slaves like cattle and

16 See Ward, C. O. *The Ancient Lowly* (The Craftsman, Washington, 1889) p. 142.

17 The slaves of the ancient world were in general of the same language, race, and religion as their masters. Slavery, consequently, was regarded usually as a sign of misfortune rather than of inferiority. Some slaves, especially in Rome, were the cultural superiors of their masters.

X.575 G6 24194
 then in selling them when they became old and infirm. According to Ovid, even porters in private houses were often chained. Other punishments were beatings or banishment to rural labor or to the mines. On the large estates, or *latifundia*, exceptionally cruel was the treatment of the rural slaves who were forced to work in gangs under an overseer, or slave superintendent, and to live in damp, insanitary, immoral, underground prisons, the abominable *ergastula*, obtaining their little rest while attempting to sleep in chains. In the mines, even more horrid conditions than those in the *latifundia*, conditions much like those described for the Athenian silver mines, prevailed.

Because of such cruel treatment "So many slaves so many enemies" became a proverb. About 500 B. C. and again about 400 B. C., conspiracies among slaves threatened, and still other conspiracies followed. In the year 135 B. C. a formidable slave revolt broke out in Sicily and thirty years later another revolt even more dangerous occurred. Another thirty years passed and the brave and brilliant gladiator, Spartacus, headed a revolt, 74 to 70 B. C., which threatened Rome itself and was terminated only after nine disasters to Rome and insubordination in the slave army. In the first revolt, about 500 B. C., maddened by hunger, the slaves ate their women and children for food, and fought to the last extremity with axes, reaping hooks, staves, and roasting spits rather than suffer the anticipated punishment. Many committed suicide. Those who survived the fighting were tortured, flung over precipices, or crucified, the latter fate, so it is said, being accorded to twenty thousand. And such was the usual result of the early servile wars, some authorities insisting that a million slaves were crucified or slain before the empire was established. Notwithstanding such dismal failures, however, revolts lasted throughout Roman history, and even when the Goths invaded Italy their enslaved countrymen joined them, forty thousand, for instance, uniting with Alaric in the siege of Rome.

The treatment of slaves, due in large part to the influence of Christianity, improved somewhat under the empire. Paul's letter to Philemon was written in behalf of Onesimus, a runaway slave; the apostle urged that Onesimus be treated "no longer as a servant but more than a servant, a brother be-

loved, specially to me, but how much rather to thee, both in the flesh and in the Lord." Perhaps even more important, however, than the influence of Christianity in the better treatment of slaves was the diminution in their numbers, for the decreasing supply, evidenced forcibly by rising prices, needed to be more carefully husbanded. The laws, therefore, gave the slaves more protection and in the time of Hadrian, 117-138, the life-and-death power was taken away from masters.

Acquisition of Freedom.—Manumission of slaves appeared in all the ancient countries. Owners of slaves could free them in various ways, and some did by outright act, by adoption as a member of the family, or by will. In the Two Rivers territory slaves at times bought their freedom with the profits of their labor or business. The slave's clan or a superior officer might redeem him if he had suffered slavery for debt or crime. If a female slave could induce her master to marry her, she and her children became free, at least in Assyria. In Chaldea and elsewhere a slave who could prove that he had been unlawfully enslaved won his freedom. Especially in Greece and Rome the methods of acquiring freedom were various,—purchase, will, adoption, and the like. On the whole, though for brief periods the law might forbid manumission, Roman slaves could obtain their liberty even more easily than could those of Greece or other ancient countries. One of these methods was by purchase, for in Cicero's time, a careful slave could save in six years enough *peculium* to buy his own freedom. Then, too, the *Justa* and *Minus Justa* permitted the acquisition of freedom. The *Justa*, or regular method, allowed four modes, namely: adoption, will, inscription of the slave's name in the citizenship roll and presentation to the censor, and *vindicta*, or pronouncing the man free in the presence of the censor. The *Minus Justa*, or the extra-legal method, was merely a manifestation of good will by a formal act in the presence of friends.

After the slave had been liberated, he became a client of his former master who defended him. The client, for his part, assumed his master's name, accorded him honor, and loaned him money. Not until three full generations of freedmen had passed did the freedmen become full citizens. In the late

period of Roman history many slaves merged with the coloni and agricultural workers to form the class of serfs.¹⁸

SELECTED REFERENCES

Duff, A. M. *Freedmen in the Early Roman Empire* (Oxford, The Clarendon Press, 1928) Chapters I and II

Fowler, W. Warde. *Social Life at Rome in the Age of Cicero* (New York, The Macmillan Company, 1909) Chapter VII

Frank, Tenney. *An Economic History of Rome* (Baltimore, Johns Hopkins Press, 1927) Chapter XVII

Gulick, Charles B. *The Life of the Greeks* (New York, D. Appleton and Company, 1902) Chapters XV-XVIII

Johnston, H. W. *The Private Life of the Romans* (Chicago, Scott, Foresman and Company, 1903) Chapter V

Louis, Paul (E. B. F. Wareing Translation). *Rome at Work* (New York, Alfred A. Knopf, 1927) Part I, Chapter V, Part II, Chapter VIII, and Part III, Chapter IX

Stone, Gilbert. *A History of Labour* (New York, the Macmillan Company, 1924) Chapter I

Ward, C. O. *Ancient Lowly* (Chicago, Charles H. Kerr and Company, 1905) 2 vols

¹⁸ See Chapters VI and IX.

CHAPTER III

AGRICULTURE

Soil.—In northern Africa and western Asia much of the soil was too rocky or too shallow or too sandy for the best agricultural production. Although Africa's northern coast line measures about 3100 miles, only Carthage and Egypt had good land. The rich plains of Libya, remarkably fertile and well adapted to the small grains, made Carthage a second Egypt. The real Egypt was the gift of the Nile, which redeemed Upper Egypt, built Lower Egypt by its deposits of rich soil, and renewed yearly the fertility of the valley soil.

The Asiatic front of the Mediterranean measures about 3700 miles, reaching from the Isthmus of Suez to the Don River. In parts of Palestine, Phoenicia, and Asia Minor coastal plains, old lake beds, and river valleys were remarkably fertile, but much of the hinterland was infertile, at times desert and often mountainous. Far to the southeast at the head of the Persian Gulf was the famous Plain of Shinar. Like the real Egypt much of this territory was alluvial soil washed down from the highlands by the rivers. To the northeast of this paradise lay the higher and less fertile lands of Assyria and to the east lay Persia. Although Persia had some fertile terraces and valleys, much of the coastal soil was sandy and most of the interior was mountainous. To the north of the Fertile Crescent rose inhospitable Armenia. Yet even Armenia had fertile valleys among its rugged plateaus and mountains.

Europe measures approximately eight thousand miles from the Don River to the Strait of Gibraltar. A fringe of islands and peninsulas comprised the coast line, which was broken by a succession of valleys and mountains. Back of the coast lay a

hinterland often remarkably productive. In Greece fertile valleys and old lake plains gave high yields and in Italy fertile lava soil or alluvial plains supplied joy and fruit for the farmers. Yet both of those regions had marshes and barren wastes.¹

Climate.—The Mediterranean Sea with its bordering lands has a climate marked by winter rains and summer droughts. For it lies on the northern margin of the trade wind or desert region of Africa and the southern margin of the westerlies which carry rain throughout the year from the Atlantic Ocean to northern and middle Europe. In summer the Mediterranean lands approximate the dryness of the Sahara, but in winter they revel in the stormy skies and frequent rains of Germany. Of course, the chief source of moisture is the Mediterranean Sea itself. That source, however, is supplemented by the Black Sea and the Caspian Sea.

Genoa on the west coast of Italy averages about fifty inches of rain a year, but Venice has slightly less than thirty. Naples averages nearly thirty-three inches, but Foggia to the east has little more than eighteen. Athens receives about sixteen inches of rain in ninety-three days. As the winds blow across the Aegean they renew their moisture, giving to Smyrna about twenty-six inches and to the coastal ranges about thirty inches. Fifty miles in the interior their precipitation drops to about twenty inches and in the interior of Asia Minor the fall is only eight to twelve inches annually. Syria, Lebanon, and Palestine profit from the rain-bearing westerlies, the Lebanon Mountains, for example, receiving forty inches, but the precipitation declines with the lower elevations and southern latitudes, dropping to eight inches at Alexandria and to 1.3 inches at Helwan. The sharp drop in nightly temperature in the highlands yields dews which mitigate the heat and the drought.

The rainfall is, moreover, variable. In Athens, for example, it averaged about thirty-four inches in 1883, but only four and a half inches in 1898. Jerusalem averages about twenty-six inches, but had only twelve and a half inches in 1869 in

¹ See Semple, Ellen Churchill *The Geography of the Mediterranean Region. Its Relation to Ancient History* (Henry Holt and Company, New York, 1931) pp. 4-7.

comparison with forty-three inches in 1877. In Tripoli rainfall ranged from twenty-six inches in 1884 to a little less than nine inches the next year. The advent of the autumn and the spring showers also is variable, sometimes being delayed a month or so. In Tripoli and the Nile Delta the summer drought extends for seven months, in Malta for four or five months, in Sicily for four months, May to September, in Naples and Rome for a shorter period, and in the Italian Riviera only one month, July.²

Snows occur practically everywhere in the lands encircling the Mediterranean, but, except in the mountains and the Po Valley, they are fleeting. Athens has snow five or six days in the year, but the temperature seldom falls below the freezing point. The southern frost limit at sea level for the territory follows the southern coast of the Iberian Peninsula, crosses Sicily, the Ionian Islands, the extremity of the Peloponnesus and moves on to the Syrian coast. The southern parts of the Mediterranean Basin are warmer.

In the mountains of Asia Minor and Armenia, however, the inhabitants protect themselves and animals from the cold at times by underground dwellings. Xenophon, after picturing vividly the sufferings of his men as they retreated northward up the Tigris Valley and over the mountains, a winter retreat made tragic by enemies harrying the rear, by enemies resisting their advance, and by natural enemies, snow and bitter cold, dogging their steps, exulted in the hospitality of the inhabitants and pictured their protection from the cold:

The houses were underground structures with an aperture like the mouth of a well by which to enter but they were broad and spacious below. The entrance for the beasts of burden was dug out, but the human occupants descended by a ladder. In these dwellings were to be found goats and sheep and cattle, and cocks and hens, with their various progeny. The flocks and herds were all reared under cover upon green food. There were stores within of wheat and barley and vegetables, and wine made from barley in great big bowls; the grains of barley malt lay floating on the lip of the vessel, and reeds lay in them, some longer, some shorter, without joints: when you were thirsty you must take one of these in your mouth, and suck. . .³

² See *Ibid.*, pp. 85-92.

³ See Dakyn, H. G. Translator. *The March of the Ten Thousand Being A Translation of the Anabasis Preceded by a Life of Xenophon* (The Macmillan Company, London, 1901) pp. 113-117, or Book IV, Chapter V.

Irrigation.—The inadequate rainfall of much of the ancient world was offset to some extent by irrigation systems, dating back several thousand years in Egypt. In the deltaic flats on the low water-logged coasts farmers early adopted methods of flood control. At first they constructed dikes for the protection of the arable lands, then they diverted excess waters to near-by dry districts, and finally they impounded the winter flood waters for summer distribution. In the higher lands they used streams, springs, lakes, and conserved the waters of melting snows as in the territory draining from Armenia.

The Nile begins to rise in July and not until November does it fully recede into its regular channel. The governments built dikes to keep the floods from the towns and the gardens and between 2400 and 2000 B. C. drained tens of thousands of acres of marshy land and constructed numerous artificial lakes to collect and to store the flood waters. The most important work of this character was Lake Moeris, an improved natural basin, connected with the Nile by a canal eight miles long, 160 feet wide, and thirty feet deep. From such store-houses, in somewhat the same fashion as in our dry Western States, the government distributed water by means of an intricate network of ditches and gates which its officers opened and closed as they deemed necessary. From the main ditch on his property the agriculturist himself carried the water in small trenches to his cultivated ground which was laid off in square beds with raised borders of earth so that the water could be let in or kept out as the farmer desired.

In the territory of the Two Rivers, an excellent system of canals, reservoirs, and dikes was early constructed to regulate the annual flood of the rivers. Assyria and Persia also practiced irrigation by the use of the river waters. Concerning the former Herodotus wrote:

The Assyrians have but little rain; the lands, however, are fertilized and the fruits of the earth are nourished by means of the river. This does not, like the Egyptian Nile, enrich the country by overflowing its banks, but is dispersed by manual labor or by hydraulic engines.⁴

On one occasion Cyrus of Persia even devoted an entire

⁴ *The Historians' History of the World*, Vol. I, p. 476.

campaign in the countries of Upper Asia between the Tigris and the Euphrates to the work of irrigation by having stream-lets built from the rivers. Nearchus said of southern Persia: "Therein are flourishing pleasure grounds; rivers of clear water and lakes, well-stocked with water fowl, irrigate the country."⁵

North African highlands had terrace springs. The territory of Carthage had reservoirs, sluices, and canals for irrigation. Palestine used the water springs, underground streams, and a few rivulets for irrigation purposes. Over-rapid drainage in Phoenicia and surface erosion early led to terracing and effective systems of conservation. The engineering heroes of the Greeks, Cadmus and Heracles, came from Syria. Gradually the mastery of the East penetrated to the West, the Boeotian peasant on his lacustrine plain adopting the irrigation methods of the brilliant Phoenicians. The Etruscans of semi-Asiatic stock taught in Italy the principles of irrigation which their ancestors had learned in Asia Minor from Tyrian and Sidonian emigrants. Often the Etruscans pierced the walls of the crater lakes in order to obtain the needed water.

The necessity of irrigation for large yields in most of the Mediterranean region led to the development of careful irrigation laws. By these laws people were forced to respect the rights of their neighbors and were limited in the quantity of water they might use, especially in the summer when water was particularly needed by the crops. Because usually only concerted effort could install irrigation works the various citizens by labor or by taxes were compelled to contribute to the construction and the maintenance of the systems.⁶

Early Methods.—Early man, like primitive man of all ages, knew nothing about irrigation. He prayed to his gods for rain and for protection against the witch doctors. Among the Indians of North America, the Negroes of Africa, and the various peoples of Asia we still have a crude sort of agriculture combined with hunting and fishing. Such agriculture has been called "hoe culture" and is clearly marked off from

⁵ *Ibid.*, Vol. II. p. 568.

⁶ See Semple, Ellen C. *The Geography of the Mediterranean Region*, pp. 465-469.

agriculture through the aid of domesticated animals. Hoe culture is best developed among the African Negroes, of whom Frederick Ratzel declares:

The ground for cultivation is cleared by means of fire, or with the hatchet or small ax. On the east coast a broad chopper with a spear-shaped blade and short handle is used. The lance or spear-head has, in general, to serve many peaceful purposes. Larger trees are killed by barking. Thorny branches are placed as a border to the fields, under the shelter of which close, thick hedges gradually grow up. The ground is broken and cleared of weeds with a wooden spade sharpened to an edge at either end. Many peoples have hitherto not ventured to use iron tools, since they keep away the rain. When the ground has been got ready, somewhere about the beginning of the rainy season, the sower walks over the field, scraping a hole with his naked foot at every stop, into which he lets some grains fall from his hand, the foot covers them up, and if the good witch doctor makes rain enough, and the bad one does not keep it back, there is nothing more to be done until harvest, unless to hoe the weeds once. . . . To the present day the plow is practically strange to them.⁷

The nations of the olden days, though often highly civilized, tended to ascribe agriculture to some patron god or goddess; consequently their methods were often poor. In the most backward of these ancient nations, as well as in unprogressive countries now, extensive agriculture prevailed, that is, crops were raised from one patch of ground until its fertility had been absorbed, then another patch was treated in the same way. This type of farming, as among the German tribes, was accompanied often by a nomadic and pastoral organization.

The utilization of the bare fallow and manure marked an advance over such exploitative methods because crops could be raised indefinitely from the same area, a fact which, of course, led to intensive agriculture. Some of the ancient nations, in truth, used such good methods that little advance was made until after the close of the Middle Ages.

Agricultural Improvements.—Even earlier than the ninth century B. C. dry farming methods reached a high degree of efficiency, particularly in Palestine and Greece, land being allowed to lie fallow in alternate years thereby not only resting the land but accumulating a supply of moisture for the crop year. Working the fallow field eradicated weeds and made the soil lighter and moister. . . . Three and even four or five plow-

⁷ See Butler, A. J. Translator. *History of Mankind* (The Macmillan Company, New York, 1904) Vol. II, pp. 380-382.

ings were recommended. Plowing was thoroughly done, all clods being crushed by hoe, mattock, or rake. Hillside furrows were made horizontal in order to lessen washing and to conserve the moisture for the plant roots. Megarans turned the subsoil as far as the water had penetrated. Thessalian peasants used a subsoil plow known as a *mischum*. Romans likewise believed in deep plowing. A change from the fallow system was considered permissible when a winter grain crop was succeeded by a winter legume crop which, following an early harvest, could be plowed under as green manure. Even then a large part of the land remained in fallow. Only the best of soils, such as the Neapolitan district which enjoyed high ground water, could be cropped every year.

Perhaps for protection but also because of the scarcity of land and water terraced agriculture early developed. Homer's "terraced Ithome" was a mountain stronghold in Thessaly. Mycenae's steep hill, scarred by old retaining walls, suggests that Agamemon's table drew its foodstuffs from terraced gardens and vineyards. Because the age-long destruction of trees had not yet impaired the water supply terraced cultivation was more common in the ancient period than now. The Aegean islands extended their crop land and conserved their water supply by terracing, thus supporting dense populations. Homer refers to "well-peopled Cos" and "well-peopled Lemnos." Even in Italy with its broad plains terracing was early practiced on such volcanic peaks as Vesuvius and Aetna and in the fertile well-watered Apennines.

Seed selection was urged by the Hebrew prophets; in *Leviticus* 19:19 we read: "Thou shalt not sow thy field with two kinds of seed." The Jews planted seed in an earthen pot or a manure pile and judged its quality by the quickness of germination. Aristotle declared that good plants were not likely to result from bad seeds, but that good plants would invariably come from good seeds. Columella pointed out the advisability of using only the best grains for seed corn. Varro urged that the finest and best grain should be kept separate from the rest in order to give the farmer the "best possible seed." Pliny knew that it was poor economy to "rob the harvest" by underseeding his land. Many writers observed that a good

soil could stand heavier seeding than a poor soil. The ancients, too, realized that seed set or planted attained better growth than when sown. The average amount of seed used on Roman soil of medium quality was about eight, sixteen, and ten pecks respectively to the acre for wheat, spelt, and barley. These figures accord fairly well with the English practice, but exceed the American practice with seed planted with drills.⁸

Irrigated land with both its summer and winter crops needed compensation for the double tax on its vitality. The ancients, therefore, developed manuring to an extraordinary degree. The early Jews burned briars, thorn bushes, and other scrub growth. Cato urged the vine-dresser to set fire to his prunings and to plow in the ashes to increase growth. The Jews and some of the Greeks prior to 700 B. C. knew the power of dead bodies to increase the productivity of the soil. Animals folded at night in the meadows were shifted systematically in order that they might fertilize the land more evenly. Old rotted manure was considered the best for the grain crops. In such dry countries as Palestine, Syria, Asia Minor, and Greece the dung hill was of particular importance because it furnished the soil with humus. The Roman authorities gave the highest ranking to bird and chicken manure, but had a low opinion of the droppings of ducks and geese. They knew that stable manure rotted with difficulty on land which had scant moisture, and that unrotted manure would open the soil, permit the escape of moisture, and burn the crop. They limited, too, the amount of manure applied, Columella specifying for average conditions of soil and weather about 788 bushels to the acre on hillside land or about 525 bushels for level land. The ancients also used mineral fertilizers. Such substances as marl, carbonate of lime, and nitrate of potassium were employed. The farmers spread marl lightly on the ground, added lime, often in the form of powder, and sprinkled nitrate of potassium over garden plots or applied a solution to various vegetables. Such mineral fertilizers, however, failed to supply humus. To overcome that defect green manure crops were added to the minerals by 400 B. C.⁹ Presumably the ro-

⁸ Of course, the ancient seeder of Sumeria was not common. In that device by means of a funnel seed were fed into the shallow trench scratched by the seeder which was drawn by a yoke of oxen.

⁹ See Semple, Ellen C. *The Geography of the Mediterranean Region*, pp 406-419

tation of crops was accomplished by the alternation of grains and legumes.

Especially in Carthage, Egypt, Judea, Phoenicia, the Two Rivers territory, and parts of Greece and Rome were intensive methods applied. The ideal seems to have been a small free estate carefully farmed under the owner's supervision. The Jews dreamed of a land with every man established on a little farm "under his own vine and his own fig tree." Mago, the Carthaginian, five centuries before Christ, urged that a man who bought a farm should sell his town house and live on that farm. Cato emphasized scientific methods in preference to hard labor when he said that the master's forehead was of more use than his back.

Size of Farms.—Nobles in the ancient world often had large estates. In Carthage and Egypt thousands of fellahs or slaves might be worked on the large capitalistic estates, but that was not the characteristic thing for the Mediterranean territory.

In Judea, following the exodus from Egypt and the conquest of the promised land, an equal division of the land among the adult males was made. That division, according to varying calculations, allowed from sixteen to twenty-five acres for each male. Homeric poems represent the farms of princes and kings as moderate in size, but as supplemented at times by communal pasture lands. Alcibiades, counted rich for Greece, had only seventy acres or so of medium land. Recorded sales indicate many farms of Greece as under fifteen acres. The early farms in Italy were likewise small, often under five acres. Not until the days of Tiberius Gracchus did the colonial allotments much exceed six acres. The agrarian legislation of Gracchus virtually trebled the size of the grants. Of course, in both Greece and Rome advancing wealth led to the concentration of land in fewer hands. The necessity of caring for the soldiers and the apparent economy of the slave plantation, moreover, crushed out the small farmer. Before his father's property was taken to satisfy grasping soldiers Vergil wrote:

But we shall wander hence to other lands,
Apart to Scythia or Afric's burning sands
To Orient's shores or Britain Sundered wide
From all the world. Oh, acres dear my pride,
And humble cot and straw-thatched roof, shall I,

In distant years returning, wonder why
 Thy harvest ears are few? My deep-tilled field,
 Will it to ruffian soldiers tribute yield,
 My grain be prize to some barbarian?
 Such woe is wrought by civil strife on man.¹⁰

In Rome as the conquests were completed the large slave estates began to give way to the large landowner who leased land to free tenants on condition that they paid rent and observed certain prescribed conditions. In time these free tenants were bound to the soil and the system merged into the manor of the Middle Ages.¹¹

Crops.—The chief crops of the ancient world were grains, fruits, vegetables, and flowers. Barley was the favorite grain crop because of its ability to withstand drought. Wheat was produced to a great extent, especially in northern Africa, Sicily, and numerous fertile valleys. In such regions as Alpine Italy, Sicily, southern Euboea, Boeotia, and Thrace a three-months' spring wheat was grown. It yielded a hard, heavy grain in contrast to the soft, light winter wheat which was preferred by most people. Rye and oats were of little importance, oats in particular being handicapped by a lack of sufficient moisture and coolness. Most of the grain crops were planted in the fall in time for the "former and latter rains." The crops developed rapidly in the warm, moist autumn, slowly during the winter, and approached maturity rapidly in the warm spring. Millet and panic, requiring both heat and moisture, thrived on the irrigated fields of the Nile Valley and the Sicilian lowlands. In the Two Rivers region, according to Herodotus, wheat, barley, millet, and sesamum reached prodigious size.

Yields were fair, but naturally varied with the character of the soil and the intensity of cultivation. When Herodotus and Pliny refer to yields of a hundredfold and more, they suggest to the discerning that opportunities, like people, lie on every hand. A yield of fifteenfold, or thirty-six bushels to the acre, was unusual and was found only in particularly favored spots. Even in the rich volcanic soils of Sicily the crop was seldom more than twenty or twenty-five bushels to the acre.

¹⁰ *Ibid.*, pp. 424-428 and Ogle, Marbury B. "Vergil and Some Problems of the Present" in the *Classical Weekly*, October 3, 1927, Vol. XXI, pp. 3-8.

¹¹ See Chapter VI.

The ancient farmers drew distinctions between sown and planted crops, assigning the latter to the hills. In 313 B. C., Theophrastus, formulating a custom even then several centuries old, urged: "Use your rich soils for grains and thin soils for trees." Trees, with their long strong roots, drew their nourishment from great depths and produced fruits. On rich land they ran to wood and foliage. Herodotus and Strabo refer to the fruits of the Two Rivers, emphasizing the palm. Of that tree Strabo says:

The palm tree furnishes everything else (except barley)—bread, wine, vinegar, and meal; all kinds of woven articles are also procured from it. Braziers use the stones of the fruit instead of charcoal. When softened by being soaked in water, they are food for fattening oxen and sheep.

It's said there is a Persian song in which are reckoned up three hundred and sixty useful properties of the palm.

They employ for the most part the oil of the sesamum, a plant which is rare in other places.¹²

Probably indigenous to and certainly conspicuous in Mediterranean cultivation were the olive, the fig, and the vine. Their elaborate root systems especially fitted them for a region deficient in moisture. Bread, wine, oil, figs, and grapes, both fresh and dried, formed the chief foods of the people. The olive contributed eating oil, anointing oil, fuel, and fertilizers and the great amount of space between the trees, dependent upon the soil and the rainfall, permitted the cultivation of various crops, at least in alternate years.

Vegetables, particularly the legumes, lettuce, onions, beets, garlic, turnips, radishes, cucumbers, and similar crops were grown. Flowers not alone gave entertainment for the wealthy in their pleasure gardens, but they led to the development of a commercialized industry, especially in Greece and Rome, at first perhaps in connection with religious festivals and then to satisfy the desires of wealthy entertainers. The Garden of Eden was represented as a paradise. Nebuchadnezzar had his famous Hanging Gardens. Palestine, Phoenicia, Syria, Asia Minor, Egypt, Carthage, Greece, and Rome all had their gardens. The *Iliad* refers to a garden "where heavy-headed poppies grow." Pindar pictured the legendary Garden of Hesperides:

¹² See *The Historians' History of the World*, Vol. I, p. 483.

There round the Islands of the Blest
The ocean breezes blow,
And golden flowers are glowing,
Some on trees of splendor growing,
And some the water feedeth,
Fair wreathes they yield, wherewith
The happy ones do twine their hands.

Animal Industries.—Much of the ancient world was better adapted to a pastoral industry than to the raising of crops. Within that territory, consequently, numerous animals appeared. Horses and cattle as a rule obtained their forage from lake-strewn highlands or valleys, or from the irrigated land. Mules, donkeys, and asses were raised. Hogs thrived on the masts of the forest. Sheep and goats obtained pasturage on the lower mountain slopes. The ancients tried to improve their animals not alone by improving feeding practices by the use of alfalfa and the legumes, but also by careful breeding practices.

The horse is a comparatively recent acquisition of man. The Kassites took him into the Two Rivers territory and from there he gradually journeyed westward, probably reaching Egypt with the Hyksos kings. He was useful in war either in carrying man rapidly into the ranks of the enemy or in pulling men in iron chariots to which sharp blades or swords were attached. Horses, moreover, supplied pleasure in the numerous races. Athens had her equestrian orders. Virtually everywhere horses were limited to the wealthy, or at least the well-to-do. In all of the important countries the horse was improved through careful feeding and breeding policies, the development of stud farms, and the importation of fine animals from foreign lands. Regions especially famous for selected breeds of horses, and cattle as well, were Egypt, the Sicilian plains, parts of Greece, and the Po Valley.

Cattle, like horses in requiring good feeding, were associated with a sedentary agriculture even earlier than the days of Solomon and Homer. Semi-arid lands thus were limited in both types of animals. The few natural meadows of Palestine were saved largely for the cows and the oxen which plowed the land and trod out the grain. Cows were kept primarily to maintain the supply of oxen, the chief draft animals of the ancient world.

Egypt had fat sleek kine. Aristotle declared that Epiros raised large cows which gave six or seven gallons of milk daily. Vergil, speaking of southern Italy, sang: "On mighty Sila feeds the lovely heifer."

Small animals such as goats, sheep, and hogs thrived under more inhospitable conditions. The goats were important dairy animals and, like the sheep, were highly valued for their wool. Particular care was given to them near the industrial cities. Diogenes declared that the sheep of the Megarans wore clothes, but that the Megarian children wore only a smile. Even on the bleak tablelands of Asia Minor, Armenia, Assyria, and Persia the animals, watched by shepherds and large half-mastiff dogs, included heavy-fleeced, fat-tailed sheep and large wooly goats. Everywhere the animals were highly prized for the wool necessary for the textile industries. Swine production depended largely on the mast-yielding trees and was particularly important in Italy where the hogs seem to have been found on every farm. The masts of the forests with the addition of barley and other grains helped to fatten them and to impart to the meat particular flavors, "beechnut" bacon being especially famous in Rome.

SELECTED REFERENCES

Frank, Tenney. *Economic History of Rome* (Baltimore, Johns Hopkins Press, 1927) Chapters I and VIII.

Gras, N. S. B. *A History of Agriculture* (New York, F. S. Crofts and Company, 1925) Chapters I-IV.

Last, Hugh, in *The Cambridge Ancient History* (Cambridge, The University Press, 1932) Vol. IX, Chapters I and II.

Louis, Paul (E. B. F. Warcing Translation). *Ancient Rome at Work* (New York, Alfred A. Knopf, 1927) Part I, Chapters VII and VIII, Part II, Chapters X and XI, and Part III, Chapter X.

Lowie, R. H. *Primitive Society* (New York, Boni and Liveright, 1925) Chapter IV.

Olmstead, A. T. *A History of Assyria* (New York, Charles Scribner's Sons, 1923) Chapter XL.

Semple, Ellen C. *The Geography of the Mediterranean Region, Its Relation to Ancient History* (New York, Henry Holt and Company, 1931) Chapters XII-XIX.

Tod, Marcus N., in *The Cambridge Ancient History* (Cambridge, The University Press, 1927) Vol. V, Chapter I.

CHAPTER IV.

MANUFACTURES

Introduction.—Early man did not make things. He found them. A stooped lonely creeper upon the face of the earth he sought his living among the insects, reptiles, and small animals and among the herbs, fruits, grains, and vegetables which grew wild. His clothing was at first the hair of his own body and then the skins of animals surprised and killed with his own hands or with clubs or crude stone hand-hatchets. His home was a cave, a hollow log, or a natural windbreak. For untold milleniums man lived as collector, fisher, or hunter.¹

In time, however, he began to make improvements in his food, clothing, and shelter. He congregated in groups with his fellows. His particular group might conquer another group or voluntarily unite with it to repel a foe dangerous to both. Every ancient population was composed of groups thus doubly, trebly, or manifoldly compounded. With his improved standards and his growing numbers man's industrial life started. He improved his clubs and stone axes, he used thorn needles to fasten his clothes together, he consciously fashioned a crude shelter, he improved his taste in food selection, and he fashioned crude clay pots by pasting the soft clay on gourds or other natural objects. The discovery and utilization of fire was the most important step in his groping upward progress, for fire brought in a more permanent home life, scared away the beasts, made possible cooked foods, and caused the development of better tools and weapons.

Foodstuffs.—Man's most elemental need is food. Desire for that essential led to improvements in his weapons and implements. He employed crooked sticks and dipped his arrows into

¹ Such conditions are even yet found in parts of the world.

poison. He smeared deer blood on crude flint hunting knives and left the knives where wolves could lick the blood and leave their own blood along trails which he could follow until he obtained the dying animals. He wrapped whale bone two feet long and compressed into small bundles in blubber tied with animal sinews. When the sinews dissolved, the whale bone cut the animal's stomach and the hunter soon obtained his game. He dug pits for trapping heavy animals and made nooses for catching birds. He made a sharpened stick for digging roots.

Grains furnished flour when pounded in crude stone vessels. By mixing this flour with water and other ingredients and by baking the mixture, bread or pancakes were made. The Sumerians of the East constructed a bread oven made from bricks and heated internally by a wood fire. When the oven was sufficiently hot they threw dough through a hole in the oven. The dough smacking the inside wall adhered there until it was sufficiently baked for use.² Ovens were employed also in Egypt and other ancient countries. The preparation of meat products by drying or salting from the evaporation of salt water or from the few salt mines of Asia Minor and Sicily was an important industry. Meats were sometimes boiled in a large kettle, but more frequently they were roasted. Dairy products, usually obtained from goat's milk, were common. Fruit syrups, honey, and sesame furnished a poor substitute for sugar. With the increase in wealth in all countries luxuries appeared. Pompeii was famous for the preparation of fine fish sauces and for her bakeries, some of which had a capacity of three or four thousand loaves daily.

Olive oil was a common drink throughout the Mediterranean region, the people there using the product much as we use dairy products. The Two Rivers territory and the eastern Mediterranean had fine vineyards and wines. In Homer's day the finest wine came from the seaward slopes of the Ismarus Mountains in southern Thrace. It was "honey-sweet" and so strong that it was diluted with twenty parts of water. Parts of Italy yielded more than three thousand gallons of wine to

² See Thompson, R. Campbell, in *The Cambridge Ancient History* (The Macmillan Company, New York, 1923) Vol. I, pp. 543-547 for some interesting details relative to Sumerian manufactures.

the acre. The celebrated Falernian wine of Italy grew on the southern slopes of Mount Massicus, which had a thick volcanic soil overlying limestone strata. For some thirsty people virtually every product known to man has supplied a beverage. Even in the midst of a cold Armenian winter Xenophon's soldiers sucked nourishment and warmth from the reeds in barley malt beverage.

The Textiles and Kindred Materials.—As primitive man roamed through the coarse grass and thickets, thorns and briars prodded his ingenuity. Like an old-fashioned match striker in a nudist colony, he felt the need of a change. Offending thorns might act as pins and with fibers or sinews fastened to them might serve as needles. By such means his skins might be fastened more securely and more effectively about his body. Woolfells, or sheepskins, afforded still more protection. In the warm lowlands people wore a minimum of flowing robes which did not always cover the entire body.

Woolen manufactures are perhaps the oldest of the textiles. Abundant raw materials came from sheep, camel, and goat in the nomadic stage of man's development. Fullers cleaned the wool or hair and in the large cities formed gilds which carded, dyed, spun, and wove the raw material. Penelope in the *Odyssey*, or Helen in the *Iliad*, or the daughters of Augustus revealed pictures of supervised household manufactures. The old industrial centers usually were located near dry pastures. Such centers were Miletos, Megara, Athens, Corinth, Corduba, and Tarentum. The breeders in such localities imported fine animals regularly in an effort to improve the quality of their wool.³ The poorest qualities of wool were used for blankets, carpets, boat or house awnings, and tents.

Closely connected with the exploitation of wools and hairs was the use of the skins or hides of animals for the manufacture of sandals and shoes. A tablet of 702 B. C. implies that the Assyrians had entered into an agreement with some Arameans who were to furnish them with sumach and oak for tanning. The sandal and shoe industry was especially noted

³ See Knapp, Charles, in the *Classical Weekly*, January 17, 1927, Vol. XX, pp. 91-92 and Kraemer, Jr. Casper, October 31, 1927, Vol. XXI, pp. 23-35. The sheep were enclosed in skins at times in order to lessen the need of washing them frequently, a process which might cause the wool to deteriorate.

in Sicyon whose wet meadows along the Gulf of Corinth and whose hinterland mountains supported large herds of cattle and horses and big flocks of sheep and goats. Especially luxurious and varied were the shoes and sandals of the women, the numerous varieties of style being recognized by their place of origin.

Man's innate love of colors appeared in the varied shades demanded. Joseph's coat of many colors had numerous rivals. Many wools were used in the native shades imparted by the saline pastures. Such hues varied from a delicate cream to brown and black. Yet those variations did not satisfy man. He sought artificial coloring materials, using the "yellow-yielding saffron" of the African coast land, the blue of the indigo from India, and the colors extracted from various roots from interior Spain. The murex, widely distributed in the Mediterranean, supplied purples and reds in varying shades. Despite this wide distribution the finest dyes often commanded very high prices. The fine Tyrian purple was so scarce and so highly esteemed in Rome that a pound of wool dyed with the purple was worth about \$175.⁴

Egypt, favored by fine flax, had developed a linen industry of every grade from the coarsest sail cloth to the sheerest of linen muslin. King Amasis of Egypt is said to have had a linen cuirass woven of linen threads each of which consisted of 365 threads. Mesopotamia, Babylonia, Elis, Cisalpine Gaul, sections of eastern Spain, and Carthaginian territory produced flax for linen manufactures. Regions lacking flax often imported it. The fine linen curtains of blue, purple, and scarlet used in the Jewish Tabernacle, for example, probably were made from Egyptian or Phoenician materials.⁵

At one time because of its scarcity and the difficulty of separating the fiber from the seed cotton was the highest-priced textile. Although India twenty-seven centuries ago made an extensive use of cotton and although traders carried the material westward and northward, the various countries of the ancient world did not take kindly to its use. In Assyria, for example, cotton is first mentioned in the reign of Sennacherib.

⁴ See Glazier, Richard. *Historic Textile Fabrics* (Charles Scribner's Sons, New York, 1923) p. 100.

⁵ See Semple, Ellen C. *The Geography of the Mediterranean Region*, p. 678.

According to Persian legend the first silkworm was born in one of Job's boils. A thousand years prior to the birth of Christ silk-making was practiced in China and it was then regarded as ancient. Perhaps the first Greek writer to mention silk was Aristotle. The women of Cos learned how to unwind the cocoon of the silkworm and to weave the filaments into a gauze which protected the person without obstructing the view. Caesar astonished Rome by appearing at a theater dressed in silk. Not until the time of Tiberius did Roman women wear silk. A law of the early empire denied men the right to wear silk garments. And as late as the third century A. D. a pound of silk in Rome was worth as much as a pound of gold. Silk garments, consequently, like cotton garments, were luxury manufactures.

Ancient peoples at times wore clothing of gold. Such clothing was in all probability first developed in Asia. Darius and other eastern sovereigns with their wealthiest nobles wore robes of gold. In commenting on such practices Pliny wrote: "Gold may be spun or woven like wool, without any wool being mixed with it." Agrippina, wife of Claudius, wore a dress made entirely of gold. The wife of Honorius died about 400 A. D. When her grave was opened in 1544 and the remains of the golden tissues which had formed her burial shroud were melted, thirty-six pounds of gold were obtained.⁶

Pottery and Kindred Products.—One of the earliest manufactures was pottery. In the Northwest Quadrant, South America, and widely scattered places the art of pottery-making developed independently. At first clay a finger thick was plastered on boiling pots to prevent the fire from ruining them. The form of gourds and baskets made from strips of slippery elm or other material also served as models. Dr. Ernst E. Herzfeld of the Oriental Institute of the University of Chicago found about eight miles northeast of Shiraz, Persia, the oldest Stone Age village yet discovered in the Orient. It dates from about 4000 B. C. On the floors of the homes were beautifully painted and designed pottery, the earliest painted pottery yet known.⁷

⁶ See Glazier, Richard *Historic Textiles*, p. 7.

⁷ It also had the earliest windows of which we have record and some of its walls were painted with red ochre.

Egypt, favored by fine plastic clay and abundant sand, became famous for pottery, beads, and plaques by 4000 B. C. The Egyptians also developed glaze and colors. The Elamites of the East produced beautiful designs, geometric or decorative, in black. The Sumerian pottery was plain, at times of turned but often unturned clay. Cream-colored water-pots, plates and bowls, and often cups of a delicate thinness were produced. Semites generally followed the Sumerian models.⁸

Cnossian Crete, borrowing her arts from Egypt, improved upon them. Pottery colors and patterns were reduced to a dark tone with a light background, or modeled designs in relief. The curving lines employed made plants and flowers to quiver with life. The yellow clay and the greenish clay of Mycenaean Greece gave way to different patterns. About 1000 B. C. a black glaze was used to cover the whole pot. Rigid geometric patterns with row on row of triangles, circles, and the like made their appearance. In the seventh century B. C. brighter colors, probably due to Oriental influence, became increasingly common. In the sixth century B. C. Athenian pottery moved toward its final form, Corinth, Boeotia, and other rivals being completely submerged. Thereafter decorators merely tried to improve their styles, pottery thus becoming merely a history of drawing. About 520 B. C. a new technique, the red-figure style, made its appearance, but the old method of black figures never completely disappeared. In this style the background is painted black, the figures are left in the color of the clay, the minor details are placed in brown lines, and a purplish red is used quite temperately. Precision is given not by incised lines, as in the early period, but by relief lines. Two characteristics appear, namely, a marked interest in the human body and new ideas relative to the body in space. In the past the figure had passed the spectator on a plane parallel to his eyes with the leg in profile and the breast frontal or the entire figure in profile. In the new style the figure partially fronts the spectator at times, or figures are shown with the back in view and some part or parts of the body, especially the head, in profile. Shading also makes its appearance in this

⁸ See Thompson, R. Campbell, in *The Cambridge Ancient History*, Vol. I, pp. 546, 547.

period, a wash of brown, sparingly used for such purposes as the fold of a garment or the rotundity of a shield.

A variety of themes, of course, was treated by the workers. Some of the artists favored historical themes, the great deeds of acknowledged heroes or legendary heroes. Others pictured boys leaving home, religious subjects, and the like. Others revealed a love for athletic scenes, men with straining muscles and quick movements. Many artists, too, pictured scenes of revelry and mirth, dancing and singing, quarreling and shouting. Still others delighted in florid pictures of idle women arrayed in voluptuous robes and toying with winged love gods. More than one hundred Athenian makers are known by name, for the workers signed their products. Even in its perfection the Greek art was scarcely natural, for in general all subjects were represented with well-formed, athletic bodies and bubbling energy.⁹

Pottery likewise developed in Italy. The red glazed pottery, or Arrentine ware, acquired a high reputation, becoming especially important in the Po Valley, Puteoli, and Arretium, the predominance in the last district being responsible for the name. The designs were in low relief stamped on the outside with molds, the design being cut in intaglio and a reddish glaze being added in low relief. A sacrificial scene on one bowl represents women, diaphanously clad, gracefully carrying offerings to market. One manufacturer, Cornelius by name, had the names of at least two score designers stamped on his wares, probably not all of whom were employed at any one time. Some of the large establishments maintained branch plants in Gaul, possibly to lessen freight charges. Probably because of the superior clay found in Gaul in time the competition of the branch plants closed the home establishments.

Metal Manufactures.—Copper was fairly well distributed from the Lebanon Mountains to Spain. Mixed with eight to fifteen per cent of tin it formed the bronze of numerous weapons and implements. Tin was, however, a very scarce article, being imported from the Far East and the Far West of the Mediterranean World. Egypt seems to have imported the ar-

⁹ See Beasley, J. D. *The Cambridge Ancient History*, Vol. V, pp. 423-425

ticle from the Malay Peninsula as early as 4000 B. C.¹⁰ Of course, copper was widely employed for numerous purposes. A wall of the Pyramid Age in Egypt, 3000 to 2500 B. C., pictured the industrial life of the people. The smiths of that day made various tools, including a rip saw, long and flat, hammered out of a piece of copper five or six feet long. They could likewise make saws which would cut stone for the pyramids. Smiths even furnished 1300 feet of copper drain pipe for a temple, one of the earliest known examples of plumbing.

Iron was found in the Pontic Ranges of Asia Minor, Syria, Greece, Sardinia, Elba, and Spain. The Hittites of Asia Minor developed iron weapons. As a mark of friendship they even sent iron swords and iron ore to Egyptian sovereigns. By contact with the Hittites the Assyrians learned the use of iron. Their armies were the first large forces to be equipped with iron weapons, a single arsenal room in Sargon's palace revealing two hundred tons of iron implements. Gradually the iron age spread throughout the Mediterranean. Iron spear-points were very common in Italic and Etruscan burials and the *Aeneid* gives considerable prominence to iron weapons,¹¹ but the Roman manufacture was a small-scale industry.

For the Mediterranean World as a whole gold was the rarest and most highly desired metal. The Phoenicians were always searching for gold and other scarce metals. They obtained gold from Thasos Island, from Lydia, from Spain, and from other regions. The Greeks obtained gold near Abydos and sought the golden fleece at the head of the Black Sea. Alexander's conquests released vast stores of Persian gold which had been drawn from the mountains of India, China, and the East generally.

The Israelites apparently obtained silver only from Tarshish and Ophir. In Africa no silver was found and in Asia Minor only a small quantity of silver was obtained from the mines. Canaan and northern India had only slight amounts of silver, and Europe, except for Tarshish, was likewise unimportant. Cyprus and Siphnus had both silver and gold in small quantities. Until the Persian wars the mines of Attica,

¹⁰ See Semple, Ellen C. *The Geography of the Mediterranean Region*, p. 163.

¹¹ See comments by Miss Catherine Saunders in the *Classical Weekly*, October 25, 1926, Vol. XX, p. 29.

Epirus, Macedonia, Thrace, and Thasos were unknown or were worked by the Phoenicians, and the mines of Thrace and Thasos were more noted for gold than they were for silver. The silver discoveries in Sardinia, Gaul, and Britain were likewise late in exploitation. In Spain, so it is said, silver bars lay on the ground unguarded, the material being so plentiful that the Phoenicians made silver utensils and occasionally silver ship anchors.

The ancients used other materials in connection with gold and silver. The Egyptians conquered the Sinai massif not alone for gold but also for copper, lapis lazuli, and malachite as early as 4000 B. C. Later they obtained emeralds from the Red Sea coastal ranges near Berenice. The Phoenicians sold beads of agate and blue fluorite. They, as well as the Cretans of the late Minoan Age, made artistic seals of amethyst, onyx, and sardonyx. At times a rather marked specialization appeared. Such seems to have been the case in the making of candelabra when, in Greece, as many as four different sets of workers might be used in four different cities. One group would make the metal branches, a second group would make the stem, a third group would fashion the pedestal, and the fourth group would make the lamps to be placed upon the branches.¹² Wealthy Rome produced luxurious and at times beautiful works of art. A silver crater from Hildesheim used for mixing wines is well shaped with nicely adjusted handles and tasteful low reliefs. The design consists of two griffins back to back with delicate spirals rising from the wings and ending in naturalistic forms. Clinging to the stems and tendrils and attacking with tridents sea animals among the spirals are little children.

Seals, Glass, and Jewelry.—Even the most primitive peoples like ornaments, beads, shells, bones, tattoo marks on the body, and the like. As civilization develops, the love of ornamentation manifests itself in other ways. Most of the ancient peoples made seals, glass jewelry, and kindred products.

The Babylonians were famous for the development of seals. For the lower classes the seals were of baked clay, but for the upper classes they were costly engraved stones in the

¹² See Rostovtzeff, M. *A History of the Ancient World*, Vol. I, p. 320.

form of cylinders which revolved on a metal axis. Some of these seals, constructed from jasper, chalcedony, and onyx, are works of art which can compete with anything produced today. The seals attained their highest quality during the days of Sargon prior to the introduction of the drill from Egypt. That event brought to an end hand-carving and the quality of the work thereafter in general deteriorated.¹³

Glass-blowing was carried to such a high degree of perfection in Egypt that counterfeited necklaces of glass sold at Thebes deceived strangers. The cutting of gems was so well done that foreign merchants demanded Egyptian precious stones. Egyptian artisans, moreover, spread glass on tiles to adorn the homes. An important product of Phoenician industry, also, was glass. Glass, however, was less generally used in antiquity than among us, for the climate of the southern countries and the East was mild, thus making unnecessary the stoppage of windows except by curtains and blinds and, furthermore, goblets of precious metals and stone were given the preference over goblets of glass as drinking vessels. Jewelry brought in a variety of material, including glass, amber, stones, gold, and silver. Amber from the North and Baltic Seas was used at Troy, in Crete, in Egypt, and in the numerous countries of the ancient world. Carthage, a Phoenician colony, had cheap jewelry and baubles used in the trade with the ignorant natives of the west coast of Africa. Her own upper classes, however, used better articles. Count de Prorok, a famous archaeologist, stated that in what might have been the room of a Carthaginian lady gold bracelets, ivory eye-brow sticks, ivory hair pins, large quantities of iridescent glass, bronze mirrors, and perfume bottles had been found.¹⁴ Similar articles appeared in the Two Rivers territory. In Assyria, for example, pendants, rings, bracelets, necklaces, and ear rings, chiefly of less precious materials than gold or silver, survive. By the fourth century B. C. the jewelers' craft was well recognized in various Greek cities, but the Greeks did not equal the Romans in the production of lux-

¹³ See Gardner, Helen. *Art Through the Ages* (Harcourt, Brace, and Company, New York, 1926) p. 61.

¹⁴ See his "Ancient Carthage in the Light of Modern Excavation" in the *National Geographic Magazine*, April, 1924, Vol. 45, pp. 391-423, particularly pp. 408, 409.

ury articles. The lapidaries of the Augustan Age carved in relief a design in a striated stone, such as sardonyx, so that each layer alternating from two to nine, would be utilized in completing the design. Prior to the first or second century B. C. glass had been molded, but about that time the invention of the blow pipe gave a marked impetus to the growth of the glass industry. The glass worker shaped the deep blue Portland Vase with his blowpipe and then dipped it into an opaque white liquid glass. He then molded separately and added the handles. When the material was hard he cut away the white layer, thus leaving in relief against the blue background the raised white figures. One of those figures shows a young woman in an attitude of sleep under a fig tree and the other figure shows another young woman sitting on a rock and holding a scepter. In the so-called "thousand flower bowls" the glass-makers revealed a high degree of skill and gave an impression of rich mosaic when the bowls were held up to the light. This result was obtained by fusing together threads of different-colored glass. The large thread thus formed was then drawn out and divided into small pieces which then were fitted into a mold and then fused into a solid mass. By regulating carefully the color and the pattern the glass-maker created frequently a color harmony of exquisite richness.¹⁵

Ungents.—Jewelry often graced the person and unguents usually served the purpose of Lifebuoy in a modern age. Widely scattered olive-presses in Palestine date back to 1000 B. C. and presses at least a millenium older have been unearthed from the volcanic ash of ancient Thera. The inhabitants of the Balearic Islands, even though without iron weapons and olive trees, extracted oil from the lentiscus plant and the Judean peasant anointed his parched skin with plain olive oil. Olive oil mixed with almond or sesamum oil was compounded with alum, sulphur, salt, tar or other products to make a healing salve. Paris, handsome and fastidious abductor of beautiful Helen, used "rose-scented oil," thus pointing to the early production or importation of perfumes. *Exodus* 30:23-38 gives an elaborate description of ointments and per-

¹⁵ See Gardner, Helen. *Art Through the Ages*, pp. 147-149

fumes manufactured from a gallon of oil and numerous drugs, perfumes, and spices. According to Pliny's *Natural History* the Royal Ungent contained twenty-seven ingredients. Antiochus Epiphanes gave fine treatment to the athletes at the festival of Apollo at Daphnae near Antioch of Syria in 165 B. C. The bodies of the athletes were anointed with saffron on one day, with cinnamon and nard the next day, with fenugreek the third day, with marjoram on the next day, and with lily for the fifth day, all ointments being supplied in golden boxes.

Oil trade, however, was largely in crude or clarified oil.¹⁶ Carthage obtained much oil from Agrigentum in southern Sicily. Not until about 75 B. C. did the declining price of oil in Italy permit much exportation. The first manufacture of unguents in Italy appeared in Campania, at Capua and Naples, whose industrial rose gardens and dense population supplied both the raw materials and the labor force. Growing wealth, power, and ostentation increased the demand to whose call farmers, because of declining field agriculture, were quick to listen.

Weapons.—Man not only desired to feed, to clothe, to ornament, and to perfume his person, but also to arm himself in order to increase his holdings or to protect his property and person. Primitive man used his claws, his fists, clubs, rocks, javelins, and the like. In time the crude hand and stone axes gave way to bronze axes, and they to still better implements or weapons. The old bronze daggers in the museums of Java and Singapore seem astonishingly similar in form and decoration to the famous Mycenaen sword, probably showing the connection of the tin mines of Malacca with Agamemnon's palace. The Hittites introduced iron weapons into the ancient world.

A paragraph on Egypt shows some of the developments in weapons and the influence of adjoining civilizations. The first copper weapons in the form of triangular daggers appeared near the middle of the pre-dynastic period. Simple rounded copper axe-heads were common under the earlier dynasties; not until the Twelfth Dynasty, about 2000-1788 B. C., did the hatchet-shaped daggers appear, perhaps of Aegean

¹⁶ Ship size was even computed in oil or wine content, that is, in amphorage.

origin. Bronze spearheads soon replaced the pear-like stone maceheads. The Aegean dagger, often with a spiral inlay on the handle and an ivory hilt, also came into use. Socketed spearheads came before socketed axe-heads appeared on the scene. Swords were largely of foreign origin. Iron did not come into general use until the fourteenth and thirteenth centuries B. C. Bows were rather weak; arrows were made from flint or hard wood. Metal armor, often brought in from Greece, was limited largely to princes or wealthy nobles. Plumed helmets were probably also of Aegean origin. Ordinary armor often consisted of heavy folds of linen or crocodile skin or of a linen or a leather base to which slats or scales of bones had been sewed. Chariots, both for war and peace purposes, appeared during the period of the Hyksos Kings, about 1800 B. C., when the horse was introduced. They were light but had a broad gauge, four spokes, and thick leather tires, being somewhat like the Babylonian chariots which had been invented by the Sumerians prior to 3000 B. C., also prior to the introduction of horses.

Architecture.—Archaeology has contributed much to our knowledge of architecture. When, however, a people depended upon clay walls or brick, time effaced many or all their records. The more durable stone resisted the ravages of time. In northern Africa the outstanding achievements were the pyramids, the Temple of Karnak near Thebes, the buildings of Carthage, particularly the Temple of Tanit¹⁷ and the fortifications and harbors. The men of the Two Rivers territory used the lever and the pulley and seemed to understand their principles thoroughly; they, moreover, utilized the arch in the construction of vaulted drains and aqueducts. Gradually wet clay used for the walls of homes and for temples gave way to brick which in the Agade period became rectangular in shape and increased in size. In time the sun-dried brick gave way to kiln-dried products. Nebuchadnezzar's "Hanging Gardens," rising terrace by terrace to a height of 150 feet and constructed to please his homesick Median wife, was one of the "seven wonders of the world." Temples likewise rose

¹⁷ See de Prorok, Byron Khun, "The Excavations of the Sanctuary of Tanit at Carthage" in *The Annual Report of the Smithsonian Institution* (Government Printing Office, Washington, 1925) pp. 569-574.

stage on stage with a different color for each stage. Borsippa's famous Temple of the Seven Spheres, beginning with the bottom, had colors of black, orange, red, golden, yellow, blue, and silver.

Although stone was common in Assyria it was not always convenient of access, nor fully appreciated. For centuries, then, the Assyrian builders used brick baked in the midday sun, perhaps held together by chopped straw, and laid while still soft, but later they utilized burned brick. In time, too, they realized that stone made better building material than did brick and used it, at least, to face their public buildings. Early Assyrian architecture revealed nothing new, nothing original. Yet Assyrian art was more than mere imitation. It became a living, breathing, growing thing. Possibly its outstanding characteristic was vivid realism. Pictured in a way that makes the flesh creep, the hair rise, and the heart jump were the dying agonies of men and animals, the hardships of the military march, and the torture of helpless prisoners. More soothing to the feelings, but also realistic, were the scenes of home life. Far removed from the simplified and conventionalized pictures of Egyptian conquests were the realistic Assyrian sculptures.¹⁸

Persia likewise had a noteworthy architecture. The Harem Palace of Darius and Xerxes was reconstructed as the headquarters of the Oriental Expedition of the Oriental Institute of the University of Chicago. That task required the replacing of stones which weighed twenty tons. In time Dr. Ernst E. Herzfeld, director of the expedition, identified the winter palaces of Darius and Xerxes and concluded that those buildings with the Harem Palace and the Palace of Artaxerxes formed a distinct group. Massiveness and delicacy were characteristics of the architecture. For example, a pin running through the axle of a chariot was carved in the form of a girl's figure, the girl's face, no larger than a postage stamp, showing the delicacy of a cameo. Perhaps, however, the chief feature of Persian art was the use of the column. The capitals represented the front of animals combined together, particularly of oxen turned in opposite directions. The use of pro-

18 See Rostovtzeff, M. *A History of the Ancient World*, Vol. I, pp. 135-136.

cessions of victorious soldiers, such as the famous representation of the triumphs of Darius, was another characteristic. That representation was majestic and stately, but it lacked the vivid realism of the Assyrian sculpture.

Unsurpassed in beauty and costliness, size considered, was the famous Temple of Solomon. Here and there in various parts of Syria and Asia Minor were other beautiful buildings. Much of this work, however, was influenced by Greek art and to it we shall turn.

Beautiful temples, colonnades, porticos, and other buildings proved a delight to the eyes of visitors in Greece. The main building of the Athenian Acropolis, the Parthenon, or the Temple of Athena, the virgin goddess, was peerless in its Doric grandeur with its lifelike statues and wonderful frieze. Phidias, its famous sculptor, has never had a superior. The Erechtheum also was one of the most beautiful buildings in the Ionic style ever constructed. Shortly after the death of Pericles the ornate Corinthian column began to gain on the stern Doric and the graceful Athenian columns in popular favor. The widowed queen of Mausolus, king of the Carians, introduced an innovation in burial practices by erecting a tomb known as the Mausoleum. Under Praxiteles figures had been growing more life-like, but under Scopos, sculptor of the Mausoleum, those figures seemed to breathe the very passions of the battlefield itself. Sculptors also pictured realistically the courage of the Gallic invaders and their dying agonies.

Rome was famous for her architecture. The Roman sphere of influence bounded on the north by Britain, southern France, Germany, and the Balkans is still marked by a line of ruins—relics of massive bridges, roomy theaters, fine public monuments, beautiful villas, and luxurious public baths. Caesar, Augustus, Vespasian, Nerva, and Trajan erected new forums in Rome. Trajan's was one of the best in the Mediterranean world, a picture of his brilliant campaigns. To the Greek columns the Romans added the arch with its modification, the dome. Their architecture was more massive and more ornate than the Greek, for they preferred the ornate Corinthian column to the simpler Doric or Ionic. Although Augustus is said to have "found Rome brick" and to have "left it marble,"

the best architecture of Rome was probably during the period of Trajan and Hadrian. The domed roof of the latter's Pantheon was a single concrete caste more than 140 feet across, a caste still considered safe.¹⁹ In Trajan's Column, one hundred feet in height and circled with spiral bands of sculpture depicting twenty-five thousand figures in commemoration and illustration of his Dacian expedition, Roman art reached its zenith. Within Rome, too, were numerous other examples of fine construction work, including the Circus Maximus, private theaters, fine palaces, and thousands of public baths. Probably no people ever lived among more beautiful surroundings than did the Romans.

Painting.—Less noteworthy in a material way but equally valuable in picturing the cultural life of a people is the art of painting. Primitive man revealed the longing for such creative work even as children now show it by attempting to use pencil and paper in the production of a picture. Drawings on the walls and the ceilings of caves still reveal their work. Surprising perhaps to most of us is the thought that Aurignacian Man could carve and draw and paint. In 1879 a Spanish noble, accompanied by his little daughter, was exploring a cavern on his estate in Altamira. When digging in the ground where he found bone and flint implements, he was startled to hear his little girl cry, "Toros! Toros!" His eyes followed her fingers which were pointing to the cavern ceiling. And there he discerned a long line of bison bulls painted in colors. For ten thousand years probably those paintings had never been seen by a human eye.

The ancient Egyptians in time developed portrait sculpture portraying all phases of life. For example, in the Pyramid Age one room might show the agricultural life on one wall, the trading life of the market place on a second wall, the industrial life on the third wall, and the pleasant home life on the fourth wall. Growing wealth led to specialization by such craftsmen as jewelers, potters, sculptors, and painters. Even in their cloth manufacture elaborate patterns developed. Carthaginians also seem to have possessed an artistic sense as references to the Temple of Tanit and the boudoir of a Car-

¹⁹ See Breasted, J. H. *The Conquest of Civilization*, p. 643.

thaginian lady have indicated. Less attention was paid to painting in the East than to sculpture. In the Greek world, however, painting reached its zenith. The delicacy of touch and the shading of the Minoan Age, crucified with the barbarian invasions, flowered again in the days of Pericles and later. Appollodorus introduced perspective in painting, thus earning the title of the shadow painter. Parrhasius is said to have painted grapes so real that birds tried to eat them and Zeuxis, his rival, painted a curtain so naturally that Parrhasius tried to draw aside the curtain and to look at the picture. Appelles painted Alexander the Great on a horse in such a masterly way that a horse came up and whinnied at the picture. Vase-painting, discussed under pottery, except for a wonderful revival shortly prior to 404 B. C., declined, but the painting of miniatures became significant. Greek painters and sculptors journeyed all over the Mediterranean world, making their living by beautifying the homes of the artistically-minded wealthy and the ostentatious, illiterary plutocrats who aped their neighbors. Such imitation was especially marked in Rome. Neither there nor elsewhere until the Renaissance, however, did such painters as the masters of Greece arise.

Large versus Small-Scale Manufacture.—Manufactures came from the homes and from shops, small and large. Perhaps the first stage was the making of things in the home from raw materials supplied by the home farm for the use of members of the home. In time, of course, a large family or the possession of slaves would lead to some production for a market.

Herodotus refers to the fact that in Egypt men, servile, worked at the looms. Such a development occurred when the loom was very heavy or the men were free from regular military service. In Egypt and the East the state promoted luxury crafts. Both Egyptian and Mesopotamian kings trained in their own workshops artisans to spread the marvels of the ancient arts. Naturally in the heavy construction work of the ancients large numbers of freemen and slaves were employed.

In Greece specialization was most marked in the pottery industry. Some workers specialized in clay work, others in

glaze, others in color preparation, others in painting, and still others in caring for the ovens or in moving materials. Two or three different rooms might be used, or workers, as in candelabra making, might be employed in several different cities. Specialization of the type just noted occurred in the establishments counted large, about a score of workers for Greece. Occasionally, however, as many as a hundred slaves might be employed in a workshop.

Rome, of course, had both large and small-scale manufactures. By the days of the early empire, moreover, several of these had been developed to such an extent that their products played an important part in the export trade. One of these was red-glazed pottery, or Arrentine ware. A second large-scale manufacture was the making of lamps, usually of red clay. A third large-scale manufacture was brick-making. This industry assumed large proportions in the reign of Claudius and received a marked stimulus from the fire of Nero's reign, brick being substituted for such early building materials as tufa-blocks, open reticulum work, and stone. Somewhat akin to brick-making were the quarrying industries. Italy had quarries of excellent Carrara marble, rich deposits of calcareous tufa or travertine, and lava blocks used for paving roads. At least at Capua copper ware and bronze seem to have been developed into a real factory industry employing thousands of workers. Bowls, candelabra stands, pans, pots, and platters were among the products. The metal furniture and works of art found at Pompeii were probably made at Capua. There, too, statues were probably cast for the Greek artists at Naples and elsewhere.

The Romans did not cast iron, being content with the anvil product. The iron establishments, consequently, were on a small scale. And the same statement holds true of the lead pipe industry. The royal water bureau provided for the main Roman aqueducts and for the water supply of the palaces, public baths and fountains, and gardens. Frontinus observes that the bureau owned about seven hundred slaves. They made and laid public pipes, stamping them with their names as well as those of the water commissioner and the emperor. Private individuals also made the pipes which they stamped

with their names. Seldom does one maker's name appear in two widely separated sections of the city. When a contract was large, it was divided among several plumbers. Small shop-owners, each with a few slaves, after receiving orders, bought the necessary metal, melted it, rolled it into plates, cut those plates into strips, soldered the strips into pipes, and then laid and connected the pipes. That such a wasteful system could continue despite the demand for standard sizes for the public works and the homes seems to show the strongly entrenched position of small-scale industry.

SELECTED REFERENCES

Buschor, Ernst *Greek Vase-Painting* (New York, E. P. Dutton and Company, 1922) Chapters I-V.

Case, C. M. *Outlines of Introductory Sociology. A Text-book of Readings in Social Science* (New York, Harcourt, Brace, and Company, 1924) Chapters XIV, XV, and XIX

Frank, Tenney *Economic History of Rome* (Baltimore, Johns Hopkins Press, 1927) Chapters XIII and XIV

Gardner, Helen *Art Through the Ages* (New York, Harcourt, Brace, and Company, 1926) Chapters I-IX

Louis, Paul (E. B. F. Wareing Translation). *Rome at Work* (New York, Alfred A. Knopf, 1927) Part I, Chapter XI, Part II, Chapters XII and XIII, and Part III, Chapters XI and XII.

Neuburger, Albert (H. L. Brose Translation). *The Technical Arts and Sciences of the Ancients* (New York, The Macmillan Company, 1930) pp 152-195.

Pijon, Joseph *History of Art* (New York, Harper and Brothers, 1927) Vol. I, Chapters I-XIII.

Swindler, Mary H. *Ancient Painting* (New Haven, Yale University Press, 1929) Chapter II.

CHAPTER V.

EARLY COMMERCE

Introduction.—The earliest trade was casual. If a tribe had a surplus and another tribe desired that surplus and had something to give in exchange commerce might develop. When the trade between ethnic groups of relatively equal strength developed, it often began as a by-industry of peasants engaged in house industry.¹ Out of that practice huckstering or peddling developed as an independent occupation. Tribal communities even engaged in commerce almost exclusively, often arranging truces in warfare or setting aside markets with fighting tabooed.

Early trade might be a seigniorial commerce supported by a thin stratum of lords. Territorial lords in the marketing of surplus products early made use of *actors* who served as agents in the sale of surplus commodities. Alien merchants seeking protection from lords obtained that protection and permission to practice their occupations on the payment of fees.² Egyptian sovereigns trafficked in the Mediterranean, in Punt, and elsewhere. King Solomon, too, is represented as trading in Egyptian horses and with far-away Tarshish or Spain. Another early form of trade was gift trade. The exchange of gifts often accompanied hospitality, as for example, in the case of the Queen of Sheba and Solomon. Among savages this exchange of gifts is supposed to cement friendship. Glaucus and Diomed exchanged armor and Jonathan and David exchanged clothing or at least the wealthier gave to the poorer. A selfish or commercial motive also appeared in the offering of gifts, namely, the desire for favor or protection. When

¹ As in India and among the Hebrews, however, a commercial caste, regarded as outcasts by some people, might develop.

² Similar practices obtained in the Middle Ages, the "actor" then becoming a "negotiator."

X. 5^c N5

G6

breaches of faith and trust occurred in the exchange of gifts, mutual safeguards appeared and in time actual trade on a fairly accurate quantitative basis developed. Still another early form of trade resulted from conquest. All ancient conquerors took desired property and often levied tribute upon the defeated peoples. Conquest built up the demand for strange products; consequently, even though independence might be won and the tribute refused, demands of the wealthy would force the continuance of the trade by private merchants itching for the large profits possible.

24194

Recognition of Private Property.—Before trade in our modern sense of exchange between individuals could arise the recognition of private property was necessary. Early property was tribal or communal, not private. The common ownership of property perhaps goes back to the ownership of hunting grounds, nesting beaches, and stores which had been saved for a time of scarcity.

Gradually certain things intimately connected with the individual came to be regarded as his very own. Land which his family had tilled crudely for a longer period of time than the patriarch of the tribe could recall became his property and he obtained a peculiar claim to its products. Respect for the belongings of another came, in the first place, from the person of the owner or from fear of his vengeance, in the second place from fear of the group to which the owner belonged, and in the third place from the voice of a developing conscience.³

Markings of property among such people seem strange. For instance, an African native who finds a fine bunch of bananas sends an arrow into it as a sign that it belongs to him and others respect the property so marked. An Australian black man who is starting on a distant journey and does not want to take his property with him will leave his possessions and an imprint of his foot in a conspicuous place and expect to find his belongings unharmed on his return. With the respect for such belongings trade began to develop. It could not, however, attain any size until man became at least partially civilized and began to desire things for their novelty or usefulness.

³ See Hayes, E. C. *Introduction to the Study of Sociology* (D. Appleton and Company, New York, 1919) p. 520.

Difficulties in Developing Commerce.—One of the first difficulties to overcome in the development of commerce is the personal element, or sales resistance. Uncivilized man satisfied his wants by his own work or by robbery, often suspected the offer of anyone to exchange wares, and perhaps did not realize the use of the article proffered. The creation of wants among backward peoples and their satisfaction by commerce came in large degree only through the rise of a class of traders and merchants who make their life work the study of wants, the inspiration of new ones, and the satisfaction of all desires.

Even when the personal difficulty had been overcome, the danger of loss at the hands of robbers or public enemies was a formidable obstacle. To protect themselves merchants journeyed in force with armed retainers. The political motive also sometimes appeared as a limitation on commerce. Primitive peoples often have definite tribal regulations, and civilized nations long have imposed customs duties or have actually forbidden the importation or exportation of a specified product. The church, moreover, imposed restrictions from time to time, and those limitations often injured trade. The difficulties of transportation likewise may limit or prevent trade. Often articles to be exchanged were produced at quite a distance from each other and needed to be carried many miles over roads so poor that the cost of transportation a few dozen miles, except for gold and similar articles, often exceeded the value of the goods. Boats, too, were so poor and the arts of navigation were so backward that voyages could not be made in the winter or stormy season. Superstitions, moreover, often paralyzed the stoutest hearts and arms. Finally a serious restriction long operated in the absence of a suitable medium of exchange, a lack which still handicaps a considerable proportion of the human race.

Transportation Facilities.—The original method of land transportation was carriage by man-power. In the East and in the interior of Africa caravan trade appears fairly early. The Coptos-Red Sea route, popular in the Punt trade of Egypt, required a caravan journey of nearly a week, but the road was well maintained, the wells being kept as free as possible from

the shifting sands. Other eastern nations maintained roads, thus permitting trade by pack animals, caravans, or wheeled vehicles. Especially was this true of such conquering nations as Persia and Rome which desired quick dispatch of messages and quick movement of soldiers. Darius of Persia in particular encouraged commerce by constructing a fine system of post roads, with milestones, ferries, bridges, and relays of horses for the king's messengers. The main road, stretching from Susa to Sardis, by way of Arbela, Nineveh, and Komana, was more than 1500 miles long. All along the road were relay stations, 111 of them, where saddled horses were kept ready night and day. Encouraged by equally good roads and protected by Roman peace merchants trafficked throughout the broad domains of Rome. Donkeys carried bales, heavy wagons moved freight, and horses and horse-drawn carriages and coaches transported passengers over the numerous roads connecting with the provinces. The speed of travel and communication was fully as great as that prevailing a century ago prior to the introduction of the steam railway, and "the roads were better."⁴

In ancient times water traffic depended largely on boats propelled by oars. For the crossing of rivers inflated goat skins were used. Especially common in Assyrian and Babylonian times were the skin-bag boats. Such conveyances are described by Herodotus, Xenophon, and other early writers. A picture by Herodotus follows:

The boats used by those who come to the city (Babylon) are of circular form, and made of skins. They are constructed in Armenia, the parts above Assyria. The ribs of the vessels are formed of willow boughs and branches, and covered externally with skins. They are round like a shield, there being no distinction between the head and stern. They line the bottoms of their boats with reeds (or straw), and, taking on board merchandise, principally palm wine, float down the stream. The boats have two oars, one man to each; one pulls to him, and the other pushes from him. These vessels are of different dimensions; some of them are so large that they bear freight to the value of five thousand talents (£1,000,000 or \$5,000,000). The smaller have one ass on board, the larger several. On their arrival at Babylon the boatmen dispose of their goods, and also offer for sale the ribs and the reeds (or straw). They then load their asses with the skins, and return with them to Armenia, where they construct new vessels.⁵

⁴ See Breasted, J. H. *The Conquest of Civilization*, pp. 629-631

⁵ *The Historians' History of the World*, Vol. I, p. 492

Traffic by sea long made use of boats propelled by oars, sail power at first being used to supplement the oars and tacking against the wind perhaps being unknown until the early Middle Ages. Plank boats were often held together by ropes and undergirding was even practiced in the days of the missionary Paul. Boats were likewise small, in the days of Homer and even in the Peloponnesian War being so diminutive that they could be dragged up on the beach when a landing was to be made in the evening. Our earliest known representation of a seagoing boat, dating from near the middle of the twenty-eighth century B. C., shows a vessel leaving the Nile for Phoenicia. Other countries also employed boats, the Babylonians even coming to the Red Sea in search of precious stones. The fleets of Minoan Crete became the first naval power in the Mediterranean and the large boats formed a striking contrast to the small dugouts of the Late Stone Age. The boats of the South and East with their many oarsmen on the side and with their great sails of linen cloth set on trees in the middle, boats so huge and so fast that their own boats seemed like grasshoppers in size and snails in movement, appalled the ignorant Europeans. Gradually, however, the European boats improved. Warships to defend trading vessels likewise developed. Corinth made the first decked war-vessels. The oarsmen were placed in three rows, three men on the same bench. The old "fifty oar" by the new developments could be multiplied by three without much increase in the size of the boats. Even in the fifth century B. C. the boats remained small, being regarded as large if they could carry 250 tons.

Roman boats in time carried passengers and freight to Spain or Athens in a week and to Alexandria in ten days. The grain ships carried several thousand tons and the freight rate from Alexandria to Rome in the third century A. D. was only two cents a bushel. Grain at the Italian ports was stored in large warehouses often of stone and protected by a custodian and guards.⁶ Harbors were given docks and light houses modeled after those of Alexandria. At times merchants even transferred the common tramp business into regular packet ship-

⁶ See Kaufman, David B. "Horrea Romana: Roman Store Houses" in the *Classical Weekly*, December 2, 1929, Vol. XXIII, pp. 49-54, for a scholarly discussion.

ping employing several boats, but primarily for passenger traffic.

The Development of Money and Interest.—There were at least three stages of monetary history prior to the adoption of metallic money. One of these stages, the first, was barter whereby one commodity was exchanged for any other commodity. A second stage appeared when a recognized medium such as stock-fish or oxen or utensils was adopted. The third stage was the use of metallic ingots of specified weights of a guaranteed quality but undivided according to a specified standard.

Of course, the inconvenience of commodities led to efforts at improvement. Claims on commodities stored in public warehouses served much as do our silver certificates, for they represented demands for wheat or other products just as silver certificates represent claims for silver. An early example of such claims occurs in Egypt. Carthage attempted a leather currency which may have been a crude bank note, or an inconvertible currency, or an alloy metal whose ingredients were a state secret.⁷ As early as the seventh century B. C., possibly even earlier, bar metal or money began to give way to coins, Lydia and the Ionian Coast towns employing stamped electrum pieces, the first examples in the western world of a true metallic coinage. The electrum was a mixture of gold and silver found in the sands of the Pactolus and elsewhere. Two prevalent coin types were the lion and the gryphon's head. Because of their varied shape the electrum coins may have been issued by private persons, bankers, or even small merchants. In all probability Croesus of Lydia was the first king to issue coins of gold and coins of silver. Crude silver coins were perhaps struck by Pheidon of Argos in the first half of the seventh century B. C. Assyria developed silver tortoise coins. By the middle of the sixth century B. C. coinage was common in Asia Minor and the Greek sphere of influence. Despite their vast commercial activities Phœnicia, Mesopotamia, and Egypt did not adopt a coinage of their own until they were

⁷ See Church, A. J. *Carthage or the Empire of Africa* (T. Fisher Unwin, London, 1899) pp. 122, 123.

penetrated by Greek influence.⁸ Even in Carthage and the Persian Empire coinage seems to have been little used save as a means for paying mercenary soldiers.⁹ Because of her simple agricultural life Rome did not coin money until 366 B. C. Her first important coin was the bronze as, which weighed one pound. Later, 269 B. C., she introduced silver at the ratio of 120 to 1, but that ratio fell to 20 to 1 during the Samnite wars when copper was well-nigh unattainable. Still later the coinage of gold was introduced, its ratio to silver being 16 2/3 to 1 in contrast to the 12 to 1 of the Greeks.

The use of two metals, usually gold and silver, as legal money is known as bimetallism. One of the puzzling questions affecting economists and purchasers has been the relative buying power of such twin metals. In early times the location of mines and the absence or presence of transportation facilities affected the ratio. Silver in various places in early days had a higher value than gold enjoyed. In the early history of Arabia, for example, silver seems to have been worth ten times as much as gold, primarily because of poor communication with silver-producing lands. By 708 B. C., nevertheless, a well-nigh modern ratio had been reached at Nineveh and presumably in the states with easy access to the Two Rivers territory, the proportion being 13 1/3 to 1.

Interest-taking developed from the needs of agriculture and commerce. Probably the recognition of interest came in the time of sudden emergency, as when money was advanced to acquire cattle and grain. Both the cattle and grain loans tended to replace themselves, and, therefore, to most the reservation of part of the fruits of cattle and grain seemed fair. The sea loan was also characteristic of antiquity. The lender received approximately thirty per cent interest on a successful voyage, less if the voyage was unsuccessful, and nothing if the boat was lost. Apparently, from the pleas of Demosthenes and others, lenders gained a strong hold on commerce, prescribing the course of the vessel, the markets, the duration of the voyage, and perhaps sending a slave with each boat.

⁸ See Hall, G. F. *The Cambridge Ancient History* (The Macmillan Company, New York, 1926) Vol. IV, p. 130.

⁹ See Weber, Max (Frank H. Knight Translation). *General Economic History* (Greenberg, New York, 1927) pp. 236, 237.

The interest rate in general often went to as high as twenty per cent in the East, but it fell from twelve per cent in early Rome to four per cent after the reforms of Augustus.

Early Banking.—Closely connected with money was the development of banking. In the ancient countries as a whole and in Greece in particular banks assumed the obligation to make distant payments and issued letters of credit to travellers. The oldest of banks, as in Egypt, did a deposit business. The banks transferred deposit credits, thus eliminating cash payments. The notes were not bank notes in our sense of the term in circulating independently of the deposit of any one individual. They were merely tickets or notes for the settlement of transactions between deposit customers. In Babylon the banker became a lender of credit, offering loans on a small scale and based on pledges or personal security. Babylonian bankers also regularly supplied commenda credit, or capital for business enterprises.

In Greece and Rome, also, banking began to develop. Athenians revealed an interest in the study of finance. Pasion, a former slave, gained a high reputation. The first banks at Rome appeared during the Hannibalic Wars. In time the booths of the bankers along the Forum gave way to fine basilica. The bankers met there and big companies were formed to collect taxes and to take the government contracts for roads, bridges, and public buildings. In Rome two new features of banking appeared, namely, the banker as a professional auctioneer and an account-current deposit business in the present-day sense. The latter development was probably due to the late development of coinage. Orders or drafts were drawn on the balance of the account current. The banking books refer to the receipts and the expenditures. Special books were kept for each customer, credits and debits being made and serving as records of payments.

Yet the private banker of antiquity save for Rome seems to have been the exception rather than the rule, for he faced the powerful competition of temple banks and state banks. The temple of antiquity served as a depository in such regions as Babylon, Egypt, and Greece, the Babylonian temple of

Sippar, the sun god, and the Greek temple of Athena being especially famous.

Accumulated savings often reached such respectable totals that temple custodians were able to make large loans on more favorable terms than private bankers could offer. For fiscal considerations, profit, ancient states engaged in the lucrative business of money-changing and the acquisition of large private deposits. In most of the Hellenistic states, particularly Ptolemaic Egypt, a royal banking monopoly developed, but that monopoly did not extend to note issue, the regulation of standards, and the coinage policy. The great power of the capitalistic knights of Rome was due largely to the fact that they prevented a monopolization of the banking business by the temples and the state.¹⁰

Domestic Trade.—In the countries of antiquity trade was carried on in the market place, at times under the presumed protection of gods and goddesses. Pictures of that trade vary little from country to country. Scenes from Egypt of the Pyramid Age picture the busy markets. Now we have the cobbler offering the baker sandals for cakes, the carpenter's wife attempting to exchange a box for fish, a potter's wife offering an apothecary two bowls for a jar of ointment, and so on. Perhaps the peasant with wheat or onions is squatting by his baskets while prospective customers are offering him earthenware, fans, vases, or some other object for which he has little use. In the East and in Europe, too, markets developed, hours, sales, and the like often being carefully regulated.

Ancient commerce, however, was a sea commerce. Few important cities were more than a day's journey from the sea, or at least a navigable river. Tradesmen often produced their articles in their own homes and shops and sold those products at the place of production. Manufacturing and selling were thus handled by the same people. The ancient household consumed very little in comparison with the average household of today. Furniture, utensils, bedding, and even clothing were limited, thus restricting retail trade. Concerning this point J. E. Conner in "A World's Fair in Ancient Greece," at Olym-

¹⁰ See Weber, Max. *General Economic History*, pp. 254-258.

pia, comments: "A modern hotel menu would certainly have swamped the whole transportation system."¹¹

In the third millenium B. C. much of the retail trade centered in the temples or state, the kings in Hither Asia regarding it as important enough to justify interference. By the beginning of the second millenium B. C. in Babylonia and Assyria kings commenced to publish tariffs from time to time and to fix maximum prices for commodities. When the acts or wars of kings began to injure the farming classes, local markets for industrial classes declined and retail trade began to diminish.

When strangers came to a market the authorities granted them protection. Some of the transients¹² thus became regular traders. In time they might employ servants or take in partners who might travel over a local area. Possibly their capital might increase enough to allow the establishment of independent settlements at distant points, or at least to allow the maintenance of resident employees at such points. Eventually the resident merchants might become fixed in their location and deal with distant regions only by correspondence. The domestic trade of the Roman Empire developed far beyond the foreign trade. Great companies and associations of merchants supplied the provinces.

As the provinces increased in self-sufficiency, however, their need of imports declined. The market of every town and village began to overflow with local products, the manufactures of the workshops and the eatables of the farms. Easy communication, particularly by rivers as in Gaul and Britain, in the territory adjacent to the Rhine and Danube and their tributaries, and in Egypt, relieved to some extent the danger of accumulating surpluses. Asia Minor, Africa, and Italy without cheap means of communication suffered from glutted local markets.¹³

Trade as a whole declined with the deterioration in agricultural methods, industrial technique, heavy taxes, debasement of the coinage and the ravages of the armies of contending emperors. People shrank back as much as possible into a self-

11 See the *Catholic World*, August, 1932, Vol. 135, p. 531

12 Such aliens were designated as *metics* in Attica

13 See Rostovtzeff, M. *A History of the Ancient World*, Vol. II, pp. 302, 303.

sufficing life. Scientific agriculture died. Struggling farmers barely lived. With their purchasing power well-nigh vanished they bought sparingly of the produce of the artisans who once had produced for a more or less important local market. The artisans lessened their output, eventually dying out, and with them perished virtually all local trade within the empire.¹⁴

Foreign Trade.—All of the countries of the ancient world engaged in foreign trade. Lords, temples, and kings as well as private individuals practiced commerce. Amber from the North and Baltic Seas and tin from the Malay Peninsula and from England circled the Mediterranean world. The Hittite iron weapons conquered the ancient world. The horses of the Kassites gradually moved westward. Although early trade, handicapped by numerous difficulties, started as piracy, tribute, or gift its records are as old as the human race. Phoenicia, Carthage, and Assyria were outstanding commercial nations, spreading their trade by treaty and by war. Babylonia, Assyria, the Hittite country, and Egypt all battled for the rich Syrian Saddle connecting the Two Rivers territory with Egypt, a region not alone necessary for the land trade, but a region of wealthy cities and prosperous farms.

To one branch of Egyptian trade, that with Punt, we wish to devote special attention. Where the Nile makes a bend toward the east in the latitude of Coptos and Thebes, approximately a hundred miles from the Red Sea, the Egyptians early opened a caravan route. Sahure about 2750 B. C. dispatched a fleet to Punt or Somaliland at the Strait of Babel-Mandeb, a point to which Arabian merchants brought Indian goods. Sahure's fleet returned with the various products needed for incense and ointment. One early official actually boasted that he had journeyed to Punt eleven times. When the Egyptian capital was moved from Memphis to Thebes, about 1835 to 1887 B. C., during the period of the Twelfth Dynasty, the Punt trade received new emphasis and Thebes became a wealthy city. In time the Punt commerce included not alone ebony, electrum, gums, myrrh, and resins, but also cassia, cinnamon, gold, ivory, muslin, perfume, and even apes,

¹⁴ See *Ibid.*, Vol. II, pp. 352, 353.

peacocks, and live myrrh trees for transplantation, the latter probably coming from present-day Yemen.

Queen Hatshepsut sent a fleet of five boats through the Red Sea to Punt, or Somaliland, in order to bring back some of these African luxuries for her beautiful terraced temples then in process of erection on the western cliffs at Thebes. Two of her five boats are painted as loading their cargoes in Punt. The sails are represented as furled and the sailors are shown carrying the products up the gang planks. One sailor is even represented as teasing a monkey perched on the roof of the cabin. The inscriptions read:

The loading of the ships very heavily with marvels of the country of Punt: all goodly fragrant woods of God's Land (the East) heaps of myrrh-resin, with fresh myrrh trees, with ebony and pure ivory, with green gold of Emu, with cinnamon wood, khesyt wood, with two kinds of incense, eye-cosmetic, with apes, monkeys, dogs, and with skins of the southern panther, with natives and their children. Never was brought the like of this for any king who has been since the beginning.¹⁵

The Phoenicians were perhaps the greatest traders of antiquity. They taught the Greeks and the Carthaginians trading secrets. In the most wonderful voyage of ancient history the Phoenicians in Egyptian service seem to have circumnavigated Africa. The time given was about the same as the Phoenician boats which made little more than a hundred miles per day would have required.¹⁶ For centuries the Phoenicians controlled the seas, apparently carrying the nautical art to almost as high a degree of perfection as it was then capable. Their fleets traversed the Indian and Atlantic Oceans, and the Tyrian pennants waved over lands all the way from the coasts of Britain to the shores of Ceylon.

Partly because of her excellent location with two good natural harbors, and with caravan routes connecting with the Temple of Jupiter Ammon, Ethiopia, and the East on one hand and with the gold and ivory coasts on the other hand Carthage was more important in commerce than she was in either agriculture or manufactures. Political policy, moreover, enhanced the importance of commerce. Carthage excluded her colonies

¹⁵ Breasted, J. H. *The Conquest of Civilization* p. 94

¹⁶ See *The Historians' History of the World*, Vol. II, p. 334 for the account as given by Herodotus.

from the Spanish trade, denied them the right to fortify themselves, and restricted their territory in such a way as to make them partially dependent upon her for food. By an early treaty she excluded the Romans from free trade with Sardinia and Libya. In two lines of trade beyond Gibraltar the Carthaginians had no notable rivals, namely, in the tin trade with Cornwall, and in the trade along the west coast of Africa, a trade in which the Carthaginians exchanged cheap finery, gaudily colored cloths, arms of poor quality, and salt for precious metals, carbuncles and other valuable stones, ivory, dates, and slaves. In this African trade, according to Herodotus, the Carthaginians spread the merchandise on the beach, started a fire in order to attract the attention of the natives, and then embarked to lessen the fear of the shy natives. Seeing the smoke, then the coast devoid of strangers, and then the strange objects of trade, the natives came to examine the goods. By the side of the desired objects they left gold and then retired. The Carthaginians, returning, if they deemed the gold sufficient, took it and left the goods, but if they deemed the gold insufficient they returned to the boat and the natives, coming back, increased the gold until the Carthaginians were satisfied or picked up their wares and left for good.

Early Crete developed an important commerce. The struggling Greek cities likewise changed from piracy to trading, even pursuing a systematic scheme of colonization in order to build up their trade. Commercial disputes were in large part responsible for the destructive wars which wrecked Greece. The exclusion of the Megarans from the ports of Athenian colonies, for example, showed in part Athen's desire for monopoly and played a part in bringing on the Peloponnesian War. The Greek merchant's destination might be the ports of Syria or Italy, but as in the case of the present-day tramp traffic, he would let reports of business conditions determine his actual course. When the season of winter winds approached, he would load a final cargo, perhaps the stranger the better, and return home. Only then could he determine his success. If his fellow countrymen had plenty of money and seemed eager for new fashions, he might sell his apes, ivory, negro slaves, and other foreign novelties with little difficulty.

The early Romans were not sea-faring people, and like the early Jews, frowned upon money lenders and profiteers. The ignorant farming class and the conservative patricians, angered because of the efforts of the commission to encourage manufactures and commerce, rejected the early Roman laws. Those laws, as finally ratified in 449 B. C., attempted to curb usury by prohibiting an interest rate of more than one per cent a month under the penalty of a fine four times the sum involved. Cato Major branded the usurer as a greater evil than the common thief. Cicero seemed to think that usury was "a form of homicide," and in *De Officiis* he condemned all small retailers because "they made no profit except by a certain amount of falsehood." Even Emperor Augustus deemed necessary the degradation of members of the *equites*, a moneyed class, who had borrowed money at a low rate of interest only to lend it out again at a higher rate, and the punishment of a man of high rank who left his lodgings prior to the appointed moving day in order that he might hire them a little later at a lower rent. Even against foreign commerce the prejudice seemed to be great, Censorious revealing it in his famous speech designed to persuade the Carthaginians to relinquish the commercial life for the agricultural life.¹⁷ The Lex Clodia prohibited any senator or senator's son from owning a ship of more than three hundred cubic feet burden. The small boats, though they could carry the grain and other products of the country estates along the coast, were, therefore, barred from the distant grain trade. Yet even then the Romans were glad to have their slaves engage in trade and give them part of the profits. Some poor freedmen became merchant princes. The romantic rise of such a freedman is pictured in this passage from Petronius (*Cena Trimalchionis*, 75) :

... I was only as big as that lamp when I came from Asia; in fact, I used to measure myself, by it every day. . . By heaven's help I became master in the house, and then I caught the fancy of my fool of a lord. Hence at his death he made me a co-legatee with the Emperor and I got a senator's fortune. But no one ever gets enough. I wanted to go into business. To cut the story short, I built five ships, loaded them with wine—it was worth its weight in gold then—and sent them to Rome. Every ship was wrecked just as though I had ordered it—that's a fact. In one day Neptune swal-

¹⁷ See Davis, W. B. *The Influence of Wealth in Imperial Rome*, p. 58.

lowed up thirty million sesterces. Do you think I lost courage? No, by heaven, the loss only whetted my appetite as if nothing had happened. I built more ships, larger, better, and luckier ships, so that no one should say I wasn't a man of courage. You know a great ship has great strength in itself; I loaded them with wine again, pork, beans, perfumes, and slaves. Then my wife did a respectable thing; she sold all her jewelry and dresses and put in my hand a hundred pieces of gold. This was like heaven to my fortune. What heaven wishes comes quickly; by one trip, I cleared a round ten million. At once I bought back all the estates that had belonged to my master. I built a house and traded in cattle; everything that I touched grew like a honey comb. When I found that I had more than all the citizens of the town put together, I quit the counter and set up my freedmen in business for me. Then I built this house. As you know it was once a hovel, now it's fit for a god. It has four dining rooms upstairs, my own bedroom, this viper's sitting room, a very fine porter's lodge, and spare rooms for guests. Take my word for it, if you have only a cent, you are valued at a cent, but if you've got something, you'll be thought worth something. So your humble servant who was a pauper has come to be a prince.¹⁸

With the increasing scramble for wealth the prejudice against trade grew weaker. In the days of the empire, traders went everywhere. To Africa they carried clothing, grain, oil, wine, copper, glassware, iron, pottery, tools, and weapons; to the North, they carried Gallic iron and Italian wine; and to other regions they carried varied products not necessarily produced in Italy. To Rome and its chief provinces the traders brought incense, lime, paper, and spices from Egypt; apes, ivory, negro slaves, and rare marbles from Ethiopia and east Africa; tortoise shell from the southeast African coast; wild beasts for the arena from central Africa; spices and medicines from Iran and Arabia; carpets, morocco leather, and slave eunuchs from Persia; such precious stones as amethysts, carbuncles, onyx, sapphires, sardonyx, and topaz, and indigo and various iron and steel manufactures from India; precious silk and silken yarn from the world beyond India; amber, flaxen hair, goose feathers, and slaves from north Europe; and hides, hunting dogs, slaves, pig lead, and tin from Britain.

As typical of ancient trade three products may be noted briefly. One of these, amber, a fossil resin, represents the love of ornamentation. A second, wheat, represents the need of the densely peopled sections for foodstuffs. The third, lumber, represents construction work and furniture.

The ruins of Troy and Cnossos have yielded amber beads

¹⁸ *The Classical Weekly*, May 14, 1928, Vol. XXI, p. 206. See *Ibid.*, pp. 201-206, for Professor Bowen's excellent paper, "Roman Commerce in the Early Empire."

whose raw material probably came from Baltic Samland. Possibly the raw amber passed from tribe to tribe east of the Carpathians to the San River, and then on to the Bug and Dniester and eventually the Bosphorus and Hellespont to Troy and then by the Aegean trade to Crete and Egypt. Apparently, too, this amber reached the head of the Adriatic by the Moravian Gate and Peartree Pass. The amber of the Frisian Islands reached the Mediterranean by way of the Rhine and the Rhone. The Etruscans who controlled the Po Valley and the passes into Italy distributed both North and Baltic Sea amber. And that material from the Baltic even found its way into Assyria and the Two Rivers territory.

Anxiety for their breadstuffs, notably wheat, harassed all of the Greek city states except Boeotia, Thessaly, and some of the backward mountain communities. Athens in particular prohibited the exportation of all foodstuffs except olives, and fought and colonized to control the Pontic coast and thus to obtain fish, wheat, and other foodstuffs. She required her merchants to bring back part of the wheat in which they trafficked. She gratefully accepted wheat as a gift from an Egyptian king for her suffering citizens. Athens obtained wheat from the Crimea, eastern Thrace, Syria, Libya, Sicily, and occasionally Cyprus, but her chief source, like that of Rome, was Egypt. When Hannibal's campaign interfered with Rome's Campanian wheat supply and war had devastated the fields of Sicily the price of Sicilian wheat rose to \$2.56 a medimnus, or about \$1.70 a bushel. In times of plenty, Sicilian and Sardinian wheat occasionally sold for the freight charges. Yet the decline of sea power from 102 to 67 B. C. allowed the pirates who infested the grain tracks to stop the trade. Wheat rose to \$4.65 a medimnus, about seventy cents a peck, or ten times the price in Sicily. Such a condition was intolerable. Pompey, appointed dictator of the sea in 67 B. C., first cleared the waters near Sicily, Sardinia, and Africa and then crushed the Cicilian pirates who hid in the Taurus Mountain shores and preyed upon the Egyptian wheat boats. During the period of Augustus approximately a third of Rome's grain came from Egypt, another third from the remainder of Africa, and the balance almost entirely from Sicily, Sardinia, Spain, and Italy.

Because of its limited rainfall a large part of the ancient world lacked lumber. When the mountains reared their heads skyward sufficient precipitation occurred to favor tree growth. The northern coast of Africa, except for the Atlas district, lacked such ranges and suffered in ship construction and the like. Solomon made a treaty with Hiram of Tyre who sent his expert lumbermen to the Lebanon Ranges to cut cedar and pine logs which were hauled to the shore, made into rafts, and towed to Joppa. Pine, juniper, and cedar were employed for boats, ship keels frequently being reenforced with oak or beech for strength. The same woods were also used in the construction of buildings. In cabinet and carpentry work numerous woods were used, among them being ash, beech, box, chestnut, cypress, elm, wild fig, holly, larch, laurel, maple, mulberry, oak, olive, plane, poplar, and walnut. Several woods were widely distributed, notably box, fig, olive, and various conifers and oaks. Some woods were found largely in the south, such as the cypress in Crete, Cyrene, Lycia, and Rhodes and the palm in the various desert belts. Regions supplying the best and most abundant wood were the northern Mediterranean belt and the windward slopes of high mountains. Pliny listed the best belts, for Italian timber the Alps and Apennine regions, for Gallic supplies the Jura and Vosges ranges, for northern Africa the Atlas cedar belt. Other famous regions named by him were Arcadia, Crete, and Macedonia for the Greek territory, Bithynia and Pontus for Asia Minor, Corsica, the Spanish Pyrenees, and Syria's Lebanon district. Countries with limited wood naturally imported heavily when they had something to give in exchange or could pay. The heaviest importer of all, of course, was luxurious and wealthy Rome, perhaps the only city of the ancient world to reach a million inhabitants.¹⁹

SELECTED REFERENCES

Day, Clive. *A History of Commerce* (New York, Longmans, Green, and Company, 1924) Chapters I-IV.

Frank, Tenney. *Economic History of Rome* (Baltimore, Johns Hopkins Press, 1927) Chapters V, XI, and XVI.

Gardner, Percy. *A History of Ancient Coinage, 700-300 B. C.* (Oxford, The Clarendon Press, 1918) Chapters XIV-XXI.

¹⁹ See Semple, Ellen C. *The Geography of the Mediterranean Region*, pp. 282-289, 356-371, and 684.

Hall, G. F., in *The Cambridge Ancient History* (New York, The Macmillan Company, 1926) Vol. IV, Chapter V.

Myres, John L., in *The Cambridge Ancient History* (New York, The Macmillan Company, 1925) Vol. III, Chapter XXV.

Neuburger, Albert (H. L. Brose Translation). *The Technical Arts and Sciences of the Ancients* (New York, The Macmillan Company, 1930) pp. 450-506.

Semple, Ellen C. *The Geography of the Mediterranean Region. Its Relation to Ancient History* (New York, Henry Holt and Company, 1931) Chapters XX-XXIV.

Weber, Max (Frank H. Knight Translation). *General Economic History*, (New York, Greenberg, 1927) Chapters XIV and XV.

PART II
THE MIDDLE AGES

CHAPTER VI.

AGRICULTURAL ORGANIZATION

Early Germanic Agriculture.—Although Teutonic peoples occupied a large part of central Europe, certain regions must be excluded from the early communal organization which Hanssen, von Maurer, and other pioneers pictured. Those regions are the early Slavic territory east of the Elbe and Saal, the territory held once by the Romans, and the region first settled by the Celts to the left of the Weser.

The land settlement took the form of the village community with four zones of land surrounding the village nucleus proper. That nucleus contained dwelling lots rather irregularly arranged. Surrounding the dwelling lots was the fenced garden land, which, at first contained as many plots as there were village dwelling lots. Enclosing the garden plots was arable land which was divided into fields. These fields in turn were laid off in strips characterized often by a lack of uniformity in breadth and by extreme narrowness. In the beginning each peasant seems to have had one strip in each field. Such a division meant equality in the distribution of good and bad land and caused the villagers to suffer equally in such catastrophes as hailstorms.

The strip system was connected with the characteristics of the German plow, which seems to have included a knife which cut vertically, a share which cut horizontally, and a mold board at the right which turned the sod, thus eliminating cross-plowing.¹ The size of the strips was about an acre, or the amount an ox could plow in a day. Confusion soon developed because the plow with its mold board on the right worked over to the left, making the furrows uneven and often plowing

¹ In the Roman system squares and cross-plowing predominated, for the plow barely scratched the soil, thus necessitating plowing back and forth to make farming possible.

up other strips, for at first there were no balks, but only boundary furrows between strips. So-called "field juries" settled resulting disputes. Lack of roads between the various allotments promoted farming according to a single pattern, the most general plan being the three-field system which dates back at least to the eighth century. One field was regularly sown to a winter grain, one to a summer grain, and one was left fallow, being manured since the historical period. A crude rotation was followed, a winter grain field being replaced by summer grain and then by fallow. During the winter livestock were fed in stalls, but in summer they ran on the pasture. The village reeve set the time for sowing and reaping, ordered the arable in grain fenced, and then ordered the fences torn down when the harvest was gathered.

Surrounding the arable land was the pasture, which was appropriated in designated shares with each villager possessing the right to pasture the same number of livestock. The last zone was the woodland in which each villager had claim to designated territory, thus obtaining wood, bedding, mast, and the like.

All of these claims,—house, lot, garden land, arable, pasture, and forest,—constituted the hide. That territory was private property and hereditary. It varied in size, but forty acres often proved to be the amount of land necessary for the average family. Dwelling lot, garden plot, and arable were individually appropriated, but the remainder belonged to the community of the hidemen, that is, men who held land in all three fields. An association of villagers seems to have controlled the wood and the waste land. This form of organization, or mark, seems to date back to the land divisions made by the Carolingians. The "head official" of the mark, a "wood court," and an assembly of deputy hidemen ran the mark business. Usually the king or a feudal lord usurped the farm and the job of the "head official" which went together.

The original equality, of course, could not last. Some families were larger than others. Younger sons who might not be given any holdings were allowed to settle on the outskirts, provided they made small payments, and fathers were permitted to allow them land from their own garden allotments

on which to build houses. Hand workers came in from the outside, obtaining a house but no arable land unless with the consent of the village reeve they bought land or leased from the village part of the almend or pasture. The owners could sell such land, but neither they nor their successors enjoyed the rights of hidemen. On the other hand, there was a class above the hidemen. Any unclaimed land available might be cleared and fenced, title to it apparently depending upon continuous use. This opportunity, of course, was virtually limited to individuals who held cattle and slaves in rather large numbers, notably, king, princes, and overlords. The king himself, moreover, might grant to favorites land which he had seized for himself. Such land was usually granted in rectangular tracts, or royal hides of approximately one hundred to one hundred twenty-five acres.

The hide system just sketched, with modifications, spread out over various parts of Europe. It journeyed north into Scandinavia and into the Danish Islands and Jutland. With the invasion of the Anglo-Saxons and Danes it crossed the English Channel into England. It spread over northern France and Belgium to Brabant. It went south to the territory between the Danube and the Iller and Leech. It journeyed east of the Elbe with German colonization.

Like many other institutions the origin of the German system is obscure. Meitzen points out that it was preceded by *Lagemorgen*, "locus acres," the quantity of land being dependent upon its quality, distance from the dwelling lot, and the like. It seems to have been the ground which a peasant could encircle in one morning with a plow pulled by a yoke of oxen. According to the military origin advocated by Rietschel, but vigorously denounced, the hundred was a military unit of approximately one hundred hidemen, each of whose holdings was four times the size of the later community holding. This large size was necessary because serfs tilled the land, thus allowing the hidemen to do military work but requiring support for themselves as well as for serfs. Apparently the German hide organization developed from the *Lagemorgen*, but the hide organization developed only in the territory conquered by the Salic Franks, not in their original holdings.

The German system declined rather early, primarily because of interference or regulation from above.²

Other Types of Organization.—When the German system reached the Weser River it stopped suddenly. On the left bank settlements in isolated farmsteads commenced. Mixed holdings dwindled, and the village or common disappeared. Individual farms were cut from the common mark, originally unused land, and were allotted to individuals. Craftsmen, laborers, and small peasants likewise gained holdings. The Westphalian farmer obtained a farm of approximately two hundred acres and enjoyed a far better economic position than the holder of mixed strips. The isolated farmstead system prevailed from the Weser to the Dutch coast, including northern Belgium, Flanders, and a part of Holland, the chief holdings of the Salic Franks.

In moving southward the German system encountered Alpine, South Slav, and Roman husbandry. Being dependent upon animals the Swiss emphasized the common pasture or almend. Stooling, or the control of the pastures for the benefit of all, was of overshadowing importance. It provided for the division of the pasture land into "strikes," one strike being defined as the pasture necessary for the annual support of one head of stock. The Slavic house community was the prevalent type of organization in Servia, Croatia, and Banat. It was merely an expanded family, perhaps forty to eighty persons, living under the control of a male head from whom most of them had descended. Although they do not usually live under a single roof, they act as one household in production and consumption, utilizing the "common kettle." In the Roman system the seigniorial estate with its dependent colons, or coloni, prevailed. Southern Bavaria, Baden, and Wurtemberg witnessed a mixture of the Roman and Germanic systems, the latter tending to disappear in the hilly territory. Both mixed holdings and cleared land in unified sections prevailed and there was little equality, perhaps due to the custom of granting holdings to unfree persons.

Because the Scotch system is recent and well-developed Ireland serves as the best example of the Celtic system. Due

² See Weber, Max. *General Economic History*, pp 3-11.

to the fact that cattle could pasture throughout the year in that region agriculture was based almost completely on cattle raising. House communities received land allotments, the head of each community probably owning three hundred or more cattle. Near 600 A. D. Irish agriculture declined and economic organization suffered changes, but even then land was assigned only for a lifetime at the longest. The chieftain even as late as the eleventh century made redistributions.³

Including many elements of the old Germanic system and of the Roman system was the predominant unit of the Middle Ages, the manor. It was an estate belonging to a lord and cultivated by a subordinate community regulated largely by custom. It existed at varying times wherever feudalism obtained a hold, being found under various names in such widely separated countries as England, France, Germany, Italy, Spain, the Byzantine Empire, Russia, and Japan.

Origin of the Manor.—Concerning the manor, which we shall try to discuss primarily as an economic unit, two conflicting theories have developed. One of these theories derives the manor from the Roman estate or *villa*. The *saltus* of Italy, Spain, and Gaul, and to a lesser extent the *fundus* or great estate, and the manor of eleventh-century England and France indeed do have many resemblances. The other theory holds, however, that the manor is Teutonic in origin and that it developed at about the same time in various countries held by Germanic peoples. One question involved in these conflicting theories is, "Have people developed from serfdom to freedom, or from freedom to serfdom?" The first, or the Roman theory in general, is identified with growth from private servile institutions, whereas the second or the Teutonic theory is associated with the free public village.

To the older theory, or the mark theory, strong opposition has developed. The word *manor*, a Norman word, applied to the Saxon townships and to a group of tenants who accepted a subordinate position and acknowledged the authority of the lord. F. Seebohm and Fustel de Coulanges lead the attack on the mark theory. The latter even questions the meaning given

³ *Ibid.*, pp. 11-17. Because the Russian system to the East is generally regarded not as a primitive system, but as a product of taxation and serfdom it is considered later.

to extracts from Caesar and Tacitus, and attempts to prove that the word mark meant primarily a boundary and secondarily a piece of private property, and that all early German law was based upon the assumption of private property in land. Yet very little depends upon the word itself as Lamprecht, Gibbins, and others point out. Evidences of communal ownership and tenancy in English and other manors point back, as Professor Gibbins says, "to a state of things which the theory of private property in land and a dependent body of cultivators cannot satisfactorily explain."⁴ The best and most reasonable solution to the problem is presented by the great Russian scholar, Vinogradoff, who contends that the "communal organization of the peasantry is more ancient and more deeply laid than the manorial order."⁵ Vinogradoff holds that the admission of a tenant "in base tenure" through the acceptance of a rod was not a sign of the lord's authority, but merely a survival of an old custom requiring that transactions be performed before witnesses, the steward thus being a witness rather than a representative of the lord.

The correct theory seems to be, as Vinogradoff insists, that the seigniorial element was tacked on to an originally communal element, subjection perhaps coming chiefly through conquest but also political, social, and judicial causes. In *Domesday* there are traces of many tenants with varying degrees of freedom, but the Normans tried to reduce all to "free" or "unfree." Free holdings in the manors, Gibbins believes, in many cases represent "free shares in a village community upon which the manorial structure has been super-imposed." Village communities in England do reveal such survivals, Gomme showing that in Chippenham and Malmesbury at least strong evidence exists of "their being free communities in time of Domesday, and much later also."

Lord of the Manor.—In an effort to secure shelter from marauders people turned to the strongest men for protection. Society thus appealed for help to the secular or the ecclesiastical power, to knight, baron, earl, duke, and king on the one hand, or to bishop, archbishop, monastery, and cathedral on

⁴ *Industry in England* (Charles Scribner's Sons, New York, 1903) p. 52.

⁵ *Villainage in England* (The Clarendon Press, Oxford, 1892) p. 408.

the other. Too often the strong man regarded the manor, which contained the land surrendered by the weak and the timid in return for protection, as entirely his property to exploit as he willed.⁶ As a matter of fact, when the system was at its zenith, he did not consider the tenants' welfare unless such consideration paid him. Then, too, he might count his manors by the hundred; hence he could not understand all of the details. In England, to illustrate the impossibility of close supervision, we may note that shortly after the conquest the ancient demesne of the crown consisted of 1422 manors. Robert of Mortain had the largest number for any other holder, 793, but Alan of Brittany had 442 and Odo of Bayeux, 439.

The manor, or unit of agricultural production, had its own name, territory, officials, and customs. It was, in short, a miniature world as well as a village, as signified by the Russian word *mir*. Its mark of unity was the manor house. Some manor houses were large and imposing castles, well fortified, but others were little if any better than an overseer's house in our own pre-bellum days.

To guide the work of the manor various officers were necessary. If a lord counted his manors by the scores he would need a treasurer to take care of his funds and a seneschal, or steward, to preside at his courts and to oversee his bailiffs. If the bailiff's misdeeds were frequent the steward could remove the offender by producing the lord's warrant. The lord of a single manor living in the little village could himself conduct the courts and oversee the bailiff. That individual was the lord's representative in charge of a particular manor and charged specifically with the cultivation of the lord's demesne. The bailiff was required to rise early, to supervise the yoking of the plow-teams, to inspect the woods, meadows, pastures and tilled fields, to watch the actual plowing, and to prevent the oxen from being unyoked before a full day's work had been done. The bailiff likewise was the director of land manuring and marling, of carting, mowing, and reaping, and of threshing. The reeve, in contrast to the bailiff, was a village foreman. According to *Fleta* the reeve was chosen by the villeins

⁶ See Gras, N. S. B. *A History of Agriculture* (F. S. Crofts Company, New York, 1925) p. 82.

in court. He had a high reputation for agricultural ability and would be accepted by the steward or lord. The reeve was required to see that an early start was made in plowing, that the fields were sown properly, and that the fields were manured well. The reeve was rewarded at times by exemption in whole or in part from labor dues or by the grant of an additional piece of land.

All manors did not have both bailiffs and reeves. By the fourteenth century one man apparently superintended the cultivation of the manor and was referred to indifferently as the reeve or the bailiff. Other officers, to be sure, were found. One of these officers, like the reeve chosen by the villeins, was the hayward, who was a warden of hedges or fences. He was to keep the fences and gates in condition, to keep the fields clear of stock at plowing-time, and to throw open the fields at "Lammasday" in the fall to common pasturage. The radman was the lord's special messenger. The shepherd, oxherd, swineherd, dairymaid, and guardian or protector of standing crops were some of the other officials found on the manor.

Part of the manor, in contrast to the tenant land, was reserved for the lord's own use. This reservation was known as the demesne, which might consist of perhaps only forty or fifty acres of arable land, but which on the large manors might run up to hundreds of acres. The demesne was made up sometimes of one block of land, sometimes of two, and sometimes it was mixed with tenant strips. In addition to the arable land the demesne often added pasture, hay meadow, peat-fuel land, and a few acres for the manor yard. The use of this land on which tenants under the various officials, especially the bailiff, were compelled to work for the lord's support and shelter was demesne, or bailiff-farming. The bailiff's accounts revealed yearly receipts and expenditures.

The lord's court met about once in every three weeks, authority for holding such a court presumably coming from the grant of the king. If the court was held by the lord as a landholder and was occupied with inheritance, transfer, land grants, fines for violation of manorial customs or neglect of duty it was known as a *court baron*. If the court consisted only of villein tenants, it was called a *customary court*. If the court

punished general offenses, violations of the assize, breaches of contract, and petty crimes, and if the lord held his authority for holding such a court actually or presumably from the king, the court was designated as *court leet*. Apparently in the customary court and the court baron the steward, the representative of the lord, was only a presiding officer; in the court leet the steward was the actual judge of the tenants. In actual practice the periodic meetings served to regulate any business that might need attention. Careful records were kept. At times a court for several adjoining manors owned by a single lord might be held in one place. The court even elected such officers as reeves, ale-tasters, haywards, and reapers, and adopted general regulations for the use of the pastures and other interests.

Manorial Classes.—In addition to the lord, whose income generally varied from about three hundred pounds to ten times that sum or even more in some instances, there were other people on the manor. The lord, of course, whether king, tenant-in-chief, or sub-tenant, had personal retainers and usually a parish priest or some monks. Most of the inhabitants, however, fell into four main classes: freemen, villeins, cottars or bordars, and slaves.

Freemen, probably of Danish or Norman origin, constituted, according to *Domesday*, only four per cent of the population of England, but in eastern and east central counties where the Northmen had settled the percentage ranged from twenty-seven to forty-seven. These freemen gave military service and paid a fixed rent in money, in kind, or in labor, but were exempt from week work. When the rent was once paid, the freemen were virtually free to move. They were free, too, in the choice of occupations for their sons and of husbands for their daughters. Freemen were under the lord's jurisdiction; hence they were often called soke-men or socmen from *soke* or *soc* which means jurisdiction exercised by a lord. Like the villeins the socmen were forced to give the boon work, to join in the spring and fall plowing, to aid in harrowing and harvesting. Their holdings, like the villein holdings, were scattered strips and they, like the villeins, were forbidden to sell their lands and to leave the manor without the approval of the lord.

The normal citizens of the manor, thirty-eight percent of the Domesday population, however, were villeins, who usually had originated through the depression of freemen or the rise of slaves. Their holdings, scattered in plots in the common fields of the manor, varied widely in size, probably not being thirty acres, which has been standardized as a virgate or yardland. From it the villeins received the designation of virgarri or yardlings. Other terms applied to them were serfs and customary tenants. For their land and house they gave two or three days' service, sometimes more, each week to the lord. In the remainder of the week the villein was free to work on his own land, or for others at a wage if he could secure work. The service, though varied, except that it did not include military service, may be labeled as *week work* and *boon work*. The former was the ordinary work, such as plowing or reaping; the latter was work on special days in the busy season, such as at spring or fall plowing, or at mowing or harvest time.⁷ Frequently as part of, or additional to, the week work and the boon work, the villein might be forced to plow a specified number of acres in the autumn and the spring, to gather the hay from a set number of acres, to place on the land a certain amount of manure, to store grain in the barn or to carry it to market, to build and to trim hedges, to ditch, to weed the grain fields, to break clods, to drive swine or sheep, or even to repair the manor house and to supply guard service in the village. The lord might "farm" the manors for various provisions, which must be sent to him. The *gite*, or burden of entertainment in the feudal system, would thus be passed on to the various manors in the fief.

Rents, whether paid in money, produce, or service, naturally varied greatly. An abbey in northwestern France obtained money from one-fourth of its tenants, money and grain from another fourth, and money and capons from the remainder. On Cuxham manor in England, according to Thorold Rogers, a villein paid his lord one cent on November 12, and two cents whenever he brewed. He likewise paid a quarter of seed wheat at Michaelmas, four bushels of oats, a peck of

⁷ See Cheyney, E. P. *Industrial and Social History of England* (The Macmillan Company, New York, 1920) p. 38 for a statement of services.

wheat, and three hens on November 12, and two hens, one cock, and two pence worth of bread every Christmas. He also plowed and cultivated one half acre of his lord's land, gave him three days' labor at the harvest season, and other days as the bailiff might require them. All of these payments were made for a half virgate of land and at that time, the close of the thirteenth century, perhaps amounted to six pence an acre for the land and three shillings a year for his home and the land immediately around it. Other payments came in at times. If the villein desired to marry his daughter to someone on another manor, he had to pay the *merchet* to his lord for that privilege. If his daughter or wife was unchaste, the *leyr* was required of the villein by the lord. If the villein wanted to reside outside the manor, he had to pay the *chevage* for that permission. If he wanted to obtain the right to sell certain goods he was compelled to pay *toll* for that privilege.

Like the villeins, unfree and bound to the soil, were the cottars, or bordars, who in all probability frequently younger sons of the freemen or villeins, constituted about thirty-two per cent of the Domesday population. Like the villeins, too, they rendered services of the type just described, but in an amount proportioned to the size of the holding. As a rule the cottars held five or ten acres, perhaps less, and a cottage. Most of them did not own a plow and the possession of a team of oxen was virtually unknown. So they were forced to combine in order to get their plowing done. Because, moreover, their holdings were inadequate for the support of a family they hired out to others for wage payments in their spare time.

Lowest of all the manor classes were the slaves who held no land, worked for their lords without pay, and could be sold like horses or oxen. The slaves probably had descended in the first place from the unfree workers on the large farms which had developed into manors or had been owned by the "free men of a free village" which had been converted into a manor. When the manor was at its zenith, the class of slaves had almost disappeared from western Europe, constituting only nine per cent of the Domesday population of England and dying out

within a century after the conquest. When the slaves entered another class, they usually became cottars.⁸

Manorial Methods.—The arable parts of the manorial lands were plowed in acres, half-acres, and quarter-acres, or roods. An acre was a narrow strip about forty rods long and four wide; the length for the other strips was the same, but the width was only a half, or a fourth as much. Strips were separated from each other by a little unplowed land, known, if covered with grass or stones, as balks, or by turning the first furrow of the next strip in the other direction. Other strips often lay at right angles or inclined to the strips just noted, thus suggesting "a great irregular checker-board or patch-work quilt."

To us perhaps the most striking feature is the scattering of these little strips in the various parts of the manor. One theory for the explanation of these scattered strips is the desire for equity in distribution, namely, to mix the good and bad land as impartially as possible. The origin, however, may have been somewhat like that in Wales where regulations relative to early conditions insisted that the first strip of plowed land should be given to the plowman, the second strip to the man who owned the irons or the plow-share, the third strip to the owner of the first ox, and so on for the owners of seven other oxen, then a strip for the driver and finally a strip for the plow, or rather the carpenter who made that plow and kept it in repair. The man who furnished one ox would thus have one strip out of every ten or twelve and his total holdings would be known as a *bovate* or *oxgang*. The man who supplied two oxen would have twice as many strips, and about twice as much land, a *virgate*, or the holding of a full villein who was presumed to be the owner of two oxen. Those who furnished no oxen at all would have scanty shares, perhaps no more than cottages and be designated as cottars, unless indeed they had served as plowmen or carpenters. Both theories may be correct in part at least, for late surveys indicate that often one man's strips would join those of the

⁸ See Ashley, W. J. *An Introduction to English Economic History and Theory* (Longmans, Green and Company, London, 1913) Vol. 1 Part I, pp. 38-40, for an interesting quarrel between a bishop and his tenants, a quarrel which the bishop won despite the fact that the king gave nominal support to the peasants.

same tenants, thus strengthening the belief that the mixed fields were divided in order of oxen with the idea of giving each man the amount of good and bad land to which he was entitled by the number of his oxen.

As a general thing the open fields belonging to a village were divided into three fields in which a rude system of crop rotation as in early Germanic agriculture was established. One field would be planted with wheat, rye, or some other crop which is sown in the fall and is reaped the next summer. A second field would be sown in oats, barley, peas, or some crop put out in the spring and reaped in the fall. The third field would lie idle in order to recover its fertility. The second year the field which had been unused might be employed with a fall-sown crop, the wheat field with a spring crop, and the oats field left idle. The third year the fall-sown field of the second year might be planted with a spring crop, the spring-sown field of the second year might be allowed to lie idle, and the idle field of the second year might be sown with a fall crop.

Farming was exceptionally poor, only eight or nine bushels of grain being obtained from land which now produces about four times that amount. The low yields were due in part to crude implements. The plow, though in later cultivation lighter plows might be employed, normally required eight oxen to break the land. A sickle was used to cut grain and a short straight scythe was used to cut grass. The little variety in food crops, potatoes being unknown and root crops and vegetables little cultivated, is another sign of agricultural backwardness. Wheat and rye were raised for food stuffs and barley and a few other grains were produced for the making of beer. Peas and beans were grown, sometimes as human food, but more often as cattle feed. Animals were small, food animals generally being killed in the fall and salted down for winter because of the difficulty of carrying them over the cold weather. Clover or grasses had not yet been introduced; hence forage had to be cut from the natural meadows. Good meadow land was thus generally worth twice as much as was the farming land.

Changes in the Manor.—When the *Domesday Book* is compared with the customs of the late thirteenth century, the

changes in the manor seem bewildering. In general, however, the important changes fall under four heads: the development of the free tenant, the substitution of money or grain payments for week work, the commutation of boon work and the various special services, and the development of the more or less free agricultural worker.

The freemen were created by three main methods: commutation of labor services for money payments, the reclamation and the letting out of the waste land, and the renting of the demesne land itself. Molmen or *malmen*, free from the "greater services" on payment of rent *mol* or *mail*, often registered as servile, were at times counted as free tenants. Commutation apparently began prior to *Domesday*, the villein probably buying freedom from the week work but still giving help in the busy seasons. Such men, referred to as *censarri*, were required to lend their plows two times a year and to aid in reaping three times. *Socmen*, obtaining exemption from the worst servile forms of villeinage, grew so rapidly that lawyers coined the term *socage* and applied it to free non-military tenure. In some districts, however, the expression *socmen* applied to tenants still required to give the boon work, whereas the term *free tenant* was reserved for tenants entirely free from labor. Here and there the lords began to enclose the waste land which they usually rented to tenants, invariably for a money rent. When such a course appeared to be to their advantage lords also often rented part of the demesne as a sort of tenancy at will for cash. Because the extra work or boon work of the busy seasons would be hard to replace the lords held on to it longer than they held to the week work. At times tenants were described as holding "for both rent and labor." Although commutation was carried out only slowly in the thirteenth century, even when it had not occurred tenants were required to find a man, two men, or a woman for a certain service, thus implying that they themselves did not always do the work. Such tenants were often referred to as *customary tenants* rather than villeins. Carting seemed to many lords the most necessary service. One entry relative to the villeins read: "Whether they pay rent or no they shall

cart."⁹ By the reign of Edward II, 1307-1327, notwithstanding, complete commutation was general.

The lord, to be sure, would have opposed both partial and complete commutation, if he had not been able to hire by the year or in the busy season the needed workers. These workers often held two or three acres of land, not enough to occupy their attention, and were glad to work for a wage. The permanent servants of the manor normally consisted of a reaper, two or three plowmen, a carter, a swineherd or woodward, one or two shepherds, the same number of cowherds or oxherds, and a dairy woman. Commutation seemingly had slight effect in increasing the number of permanent hired laborers. In the busy season extra workers were hired as they were needed. This hiring for limited periods and the commutation of labor requirements forced the keeping of bailiff's account rolls. As long as money payments had been slight, the only record needed was a list of services.

Decline of the Manor.—The manorial system, of course, had both advantages and disadvantages. It allowed some measure of economic protection, led to the maintenance of certain standards of tillage, and gave thrift an opportunity to find a reward. On the other hand, small proprietors encountered difficulty in finding land, the scattered holdings involved waste of time and effort, the lack of fences provoked trespassing and quarreling, and custom prevented experimentation and change.

As time passed the disadvantages began to outweigh the advantages and after 1300 decline began in England. The most marked signs of that decay came with the Black Death, 1348, and the Peasants' Revolt, 1381. Edward I by promoting a system of national regulation discouraged inefficient local regulation. The decay of feudalism and the rise of towns, furthermore, had promoted the decline of the manor as shown in bailiff farming. With its decay services were commuted for money rents. Servile status thus died out, many serfs on royal estates being freed in 1574. With the vast hoards of money from the New World rents tended to vanish. And enclosures came rapidly. Since 1500 the chief English survivals have been the open-field system, cultivation of farming land as de-

⁹ See *Ibid.* Vol. I, Part I, pp. 20-33.

terminated by the village group, common use of pasture, meadow, and waste, manorial tenures, and the manor-houses sometimes elaborately rebuilt.

In northern France decay began even earlier than it did in England; in Burgundy it occurred about the same time. In parts of France, however, the manor survived until the Revolution of 1789, and in Prussia, Russia, and Japan it lingered until the nineteenth century, edicts or laws being necessary to terminate its existence in northeastern Germany and Russia.

Special Regions.—Although most of Europe's population has been discussed under the manorial system, southern Europe, Flanders, Switzerland, northern Europe, and Russia may be considered as special fields. In those fields the best methods prevailed in Moorish Spain and Flanders and the worst methods in northern and eastern Europe.

Of Attila's followers Ammianus Marcellinus said: "Not one among them cultivates the ground or even touches a plow-handle. All wander abroad without fixed abodes, without home or law or settled customs, like perpetual fugitives, with their wagons for their only habitation."¹⁰ Attila's death in 453 brought little relief, for invasions of the territory continued. The land south of the Danube seemed as bare as a threshing floor, for Visigoths, Huns, Ostrogoths, Avars, Bulgars, and Magyars for five hundred years or more preyed upon the region. In some provinces, so great were the depredations, the higher classes, having lost slaves and serfs, gave up their lands, became cultivators, or died out.

In the eighth century these mixed peoples were free renters or inhabitants of free communes with an interest in the communal land. Leo III in that century seems to have abolished serfdom entirely, but the wealthy clergy and the nobles opposed his reforms, and in the latter half of the ninth century succeeded in restoring the old order of affairs, for they were as opposed to new methods as was the ignorant boy who objected to attending school in a building where electric switches were being installed.

Penetrating into this backward region from the west was a German influence. Stephen of Hungary, the first Christian

¹⁰ See Williams, H. S. Editor. *The Historians' History of the World*, Vol. VII, p. 47.

king, baptized in 1000, was favorable to the Germans, especially to the lower nobility. German peasants, too, consequently, came into the country and settled on the lands of the king, the clergy, and the nobles. German influence, though, of course, varying in its effects, also appeared in Bohemia, Poland, and other regions. The monks who entered this territory naturally brought in new methods of agriculture and horticulture and also an unfree laboring class, and in Poland, in particular, they furnished an example of the manor.

Despite wars, foreign and civil, wars which from the third century on compelled Italy to face the problem of deserted farms, agriculture continued. With the coming of the Ostrogoths under Theodoric, 489-526, conditions seemed to improve, for the idle lands were taken by the conquerors. Various individuals, too, during Theodoric's reign offered to drain land on condition that they be given ownership. Theodoric, moreover, lessened brigandage, a fact favorable to agriculture and industry. Yet he aroused opposition by forbidding the exportation of grain from the country and at times even its shipment from one province to another and by setting maximum prices, thereby making foodstuffs one-third cheaper in his day than they were before the fall of Rome. The agricultural classes, therefore, aided Justinian in the conquest of Italy. The Lombard invasion shortly afterward, though the majority of the population clung to the soil, drove many peasants from lands already devastated and deprived many large landholders of their holdings. Before 1100, however, the old irrigation works of Milan, constructed in Roman times, were restored and later were extended, a work in which the Lombard cities and the Cistercian monks in particular participated. Toward the close of the Middle Ages legume rotation was replaced by field-grass husbandry whereby the various kinds of land, such as arable, pasture, meadow, and waste, were thrown together for similar treatment, the name arising from the importance of field grass.

Within three centuries after the Mohammedan conquest of Spain Arabian civilization in the West ranked high. Many new agricultural crops had been introduced and various flowers were produced for their perfume. Andalusia and Mercia

were the most fertile parts of Moorish Spain. The former, with its semi-tropical climate, was a veritable paradise, with cotton, dates, olives, and sugar-cane as the chief products; the latter was famous for its wheat, sugar-cane, olives, and oranges. Throughout the Guadalquivir Valley grains thrived. Wine also was important, Malaga even that early being famous for its grapes.

To the development of agriculture the Mohammedan religion, like the Persian religion of old, contributed. A favorite religious proverb reads: "He who plants or sows, and who causes the earth to produce food for man or beast, does a service the account of which will be kept for him in the sky."¹⁴ One of the twelfth-century Spanish writers produced an agricultural treatise far ahead of anything contributed by western Europe during the Middle Ages. Agriculture, in fact, became a science¹⁵ at a time when it was merely manual labor for the remainder of Europe. Science, furthered by the semi-aridity of the climate, naturally led to irrigation. More than did any other people of the Middle Ages the Moors taught and practiced irrigation. In southeastern France near the Spanish border they turned the water into a plow furrow "along the higher side of the field." Within a few hours it would soak through to the lower side, thus irrigating the entire field.

Aided by irrigation the Moors developed a rather intensive agriculture. In August, after they had gathered the wheat, they scratched the soil with their small Roman plows which could not turn a furrow, and sowed annual clover. They planked the clover in by dragging over the surface a plank weighted down by a boy. This operation broke some of the clods and smoothed the surface of the ground. Water being turned in, the clover grew rapidly, attaining knee depth by October or November when the sheep were pastured. Continued applications of water caused the clover to grow rapidly again. And so the sheep harvested it a second time in February. Probably in May the third harvesting of the clover occurred, the crop being mown for hay. Soon the farmer

14 See Thompson, J. W. *An Economic and Social History of the Middle Ages* (The Century Company, New York, 1928) p. 548.

15 Northern Spain, however, was a sort of "No Man's Land" because of its strife. Nothing was safe from raiding bands. Because cattle and sheep might be contested when growing crops could not most people made their living by ranching, or raiding.

scratched the ground again and planted peas or millet. Irrigation continued, reaping time came once more, and the farmer sowed his wheat in October or November.

Stock raising in northern and central Spain was especially important. Even in Roman times Spain had been famous for its wool. The Mohammedan conquest in 711, moreover, had increased sheep raising, for the Moors and Berbers were a pastoral people, who by bringing in new breeds of sheep from Africa improved the stock. The Moors also paid attention to the breeding of goats and the culture of bees.

Much of the Low Countries consisted of marshes and sunken plains rendered productive only by exhaustive labor. From the eleventh to the thirteenth centuries thirty-five different inundations affected the region. At the beginning of the eleventh century scarcely a fourth of the land was cultivated, but by the close of the fourteenth century virtually every available acre was in use. The large amounts of capital required for the sea walls, dikes, canals, and pumping apparatus, compelled, to be sure, the use of an intensive type of agriculture on enclosed fields, thus forbidding the use of the three-year manorial plan and the adoption of the strip system. The very scarcity of land, in fact, forced the use of fertilizers and profitable and non-exhaustive crop cycles, and five-year, seven-year, and even eleven-year crop cycles, consequently, developed. Market gardens, dairy farms, orchards, and even some vineyards marked the progress. Fruits, grains, and stock were bred, crossed, and acclimated. The beginnings of a veterinary science, the shifting of land from arable to pasture and the reverse, and the introduction of forage crops all are signs of the development of the Low Countries. From that region clover, sainfoin, and other crops were carried later to England. Even before the close of the Middle Ages, or several centuries before the custom became common in England, successful merchants bought farms and developed them with the same sagacity that had brought fortunes in commercial activities.

Switzerland's topography limited her agriculture, but she raised grains, and apple, pear, and plum trees. Her chief

source of wealth was stock, shepherds being more numerous than laborers and mechanics.

Equally backward was Denmark. Concerning that country a Bamberg priest wrote about 1100:

The country has towns and villages without walls, only palisades and earthworks. The homes of the nobility and the churches are very poor. . . The inhabitants are engaged chiefly in hunting, fishing, and cattle-breeding, for with their poor system of agriculture all their wealth is measured in cattle.¹³

Norway likewise was an inhospitable country. Most of her people made a living by fishing, with a little hunting, and cattle raising. Some honey and wool, however, were produced, and a little grain was raised in the southern part of the country.

Adam of Bremen, nevertheless, speaks of Sweden as "a very fruitful country, rich in grain and honey, and cattle-breeding." As in Norway, hunting, fishing, and cattle-raising were important. Toward the close of the fourteenth century agriculture increased in importance and wheat entered into the export trade.

Agriculture was likewise of little importance in Russia. In the northern part of the country the land was too swampy and too wooded to support much farming. Only occasionally, in fact, could patches of ground large enough to support a tiny hamlet of two or three homesteads or even a single homestead be found. Part of the southern region was, moreover, too dry for farming and in some cases even too dry for pastoral life. Until approximately 1200, consequently, the principal occupation was not farming but trading. The Tartar invasion changed conditions little, for the Mongolians were nomadic peoples of whom a Chinese writer said:

This people have no need of baggage or provision wagons; their herds of sheep, cows, horses, and other animals follow them on their marches, and they eat meat and nothing else. Their horses do not know barley, but they tear up the ground with their hoofs and live on the roots."¹⁴

Yet the excess of slaves needed an outlet after the eleventh century; hence some tillage was practiced. Especially was

¹³ See Thompson, J. W. *An Economic and Social History of the Middle Ages*, p. 540

¹⁴ *The Historians' History of the World*, Vol. XVII, p. 134

this true of the basin of the middle Dnieper, where the clearings produced grain and hemp, and bee culture supplied honey. From 1200 to 1450 trade seemed to decline, thus promoting agriculture. In the region of Moscow in the heavy clay soils exploitation first began, and toward the close of the Middle Ages the Volga basin and the black soil region of the Don were worked. Although estates increased in size, the manorial system for Russia is a product of the early modern period, not of the Middle Ages.

SELECTED REFERENCES

Ashley, W. J. *An Introduction to English Economic History and Theory* (London, Longmans, Green and Company, 1919) Vol. I, Part I, Chapter I.

Bland, A. E., Brown, P. A., and Tawney, R. H. *English Economic History. Select Documents* (London, G. Bell and Sons, Ltd., 1915) Part I, Sections I and IV.

Davis, W. S. *Life on a Mediaeval Barony* (New York, Harper and Brothers, 1923) Chapters I and XVI.

Gras, N. S. B. *A History of Agriculture* (New York, F. S. Crofts and Company, 1925) Chapter IV.

Knight, M. M. *Economic History of Europe to the End of the Middle Ages* (Boston, Houghton Mifflin Company, 1926) Chapter V.

Maine, Sir Henry S. *Village Communities in the East and West* (John Murray, London, 1907) Chapter V, or Lecture V.

Vinogradoff, Paul. *Illainage in England* (Oxford, The Clarendon Press, 1892) pp. 1-88.

Weber, Max (Frank H. Knight Translation). *General Economic History* (New York, Greenberg, 1927) Chapters I, IV, and VI.

CHAPTER VII.

SOCIAL CONDITIONS

Teutonic Characteristics.—Inasmuch as the Teutons rank with the Greeks and the Romans as one of the three great historic peoples we shall note briefly some of their characteristics and institutions. To the short, dark peoples of southern Europe these tall, huge-limbed, white-skinned, light-haired, blue-eyed Germans appeared veritable giants. Like our Indians they made a living by fighting, barter, and a hoe-type agriculture practiced by the women and the slaves. Among such people, of course, the usual marks of savagery prevailed. They were fierce, quarrelsome, and intemperate, their cold damp homes tending to make them drunkards and gluttons. And they were a race of gamblers, even willing to stake their personal liberty on the chance of the dice. They displayed, furthermore, a grim joy in battle. Yet they had noble traits not always found in savage races, for they were hospitable, had a pure family life, worshipped truth and fidelity, and possessed a strong spirit of individual liberty.

To determine the exact form of their government is a difficult task. Apparently the concilium or tribal assembly, presided over by the priests, was the highest authority in all matters of importance. By it the kings were chosen with "regard to birth" and the generals with regard to valor, serious charges against members of the tribe were considered, and youths were admitted to warrior rights. An affirmative vote was given by the clashing of weapons; a negative vote was recorded by an "inarticulate murmur." Every great chief was surrounded by a band of companions, a band known as the *comitatus*. At tribal assemblies, according to Caesar, a chief would propose some expedition, and usually a number of young men

would gladly accept his proposal and share loyally his misfortunes or fortunes.

Even in the days of Tacitus, about 55-120, three classes were found: nobles, freemen, and freedmen. The same classes, though occasionally one might disappear as the nobility in the case of the Franks and the freedmen in the case of the Anglo-Saxon kingdoms with the exception of Kent, appear in later times. Each class was at least partially hereditary and enjoyed separate rights and privileges. The chief of these rights was *weregeld*, or man-price. If a man was murdered, his relatives, and at times the lord of the slain man, were considered bound to avenge his death. Compensation, however, as in the case of other injuries, might be made in money, the money being paid not alone by the slayer, but by the slayer's kindred, proportioned doubtless by the nearness or remoteness of kinship. The normal payment for a freeman seems to have been a hundred head of cattle; for members of other classes the sums were more variable.

Teutonic trials consisted of compurgation, ordeal, and combat. In the first accusers and accused swore to the truth of their statements, each principal producing as many witnesses as possible, witnesses who swore that they thought their man was speaking the truth. The worth of an oath depended upon the rank of the witness. In trial by ordeal the accused man was bound and was thrown into water or was compelled to plunge his arm into boiling water, or to carry a hot iron or to walk over red-hot plowshares. If he sank, he was considered innocent, for the water was supposed to reject everything impure; if uninjured by the heat for several days after the trial, he was regarded as innocent. The favorite method among the nobles, however, was trial by combat, or the judicial duel, in which God was supposed to show the right by granting victory. The various trials, usually conducted by the clergy, began with religious ceremonies, presumed insurers of right judgments.

Among the Teutonic peoples the common forms of marriage, including capture and purchase, were found. Marriage was preceded by a formal betrothal and was accompanied by a feast. The bridegroom often gave the bride a "morning gift,"

which with the queens and the princesses frequently meant large estates. Marriages that would not be allowed now, namely, with brother's widows and step-mothers, were permitted.

Teutonic peoples practiced both burial and cremation, one apparently never completely driving out the other. Cremation seems to have appeared in the early part of the bronze age and to have become very popular by the close of that period, but in the national migration period even before conversion to Christianity it declined. A special form of rite found in the North was cremation on a ship, usually on land, but at times in the sea. With the human remains arms and ornaments and sometimes the bones of horses and slaves have been found, the belief apparently being that such objects would aid the deceased in the life beyond.

Several gods and goddesses, among them Odin, Thor, Tyr, and Frigg, the wife of Odin, were known in England and among most if not all of the Teutonic peoples. In addition to the main gods there were many deities of a tribal character, some probably glorified heroes rather than gods, as late as the ninth century in Sweden, for example, a dead king being deified and a temple being erected in his memory. Another class of supernatural beings included the dwarfs who were especially noted for their cunning and their skill in metal-working and elves and other beings. A third class even included as objects of worship animals and material things. At times, too, certain sacred symbols, or images of beasts, among them one of the most famous being the Cimbrian brazen bull, were worshipped. Swords, rocks, stones, springs, and pools also were worshipped. But the most characteristic point in Teutonic religion was the sanctity accorded to certain groves and trees either as objects of worship themselves or as the residences of the gods. The most important of the religious ceremonies was the human sacrifice, especially to Odin to whom an enemy's army with everything belonging to it might be dedicated. Dogs and hawks also were offered with the men at the human sacrifice, and horses, oxen, and boars were consumed at the sacrificial banquets.

Manorial Life.—In the Middle Ages the village consisted of

one street with houses on each side, houses inhabited by the farming population. Each farmer was compelled to perform his task in a common system of cultivation under strict customs effectively enforced by the lord's courts. The work on the landlord's demesne was performed by the villeins who placed themselves, their oxen, and their plows at the bailiff's service. Because, moreover, the demesne frequently consisted in large part of land in the common fields the lord was compelled to submit in those fields to the same regulations of joint cultivation as those enforced by his own tenants. Most of the land was farmed by the small holder. The gulf between him and his lord was wide, but that between the cottar and the villein might be easily spanned, for each worked in the same way, lived in much the same manner, and held common interests. Custom in the Middle Ages tended to regulate everything. Individual liberty, competition, and capital in our sense of the terms did not exist.¹

If we divide the English Domesday population of 283,342 by 9,250, the number of manors, we shall have about thirty able-bodied men for each village, or if the families averaged five members, about 150 people. The peasants, whether free or servile, lived together near the dwelling of the lord, or the manor house. Near the manor house ordinarily stood a church, which was also used at times as a town hall or for markets. The priest's house, too, probably was located on the demesne. The next most important dwelling was perhaps the mill which, if the manor had one, would be located on the stream in order to make use of the water power.

Houses were poor and insanitary, at times made of stone but not until the fifteenth century of brick. The posts were wattled and were daubed over with either clay or mud. The upper story, composed of crude poles, was reached by a ladder. The furniture was coarse and scanty, home-made, as in our early American cabins. Some rafters or poles overhead, a rack for bacon, and a few farming tools were the things that would fix the attention of a visitor. Chimneys and windows were virtually unknown except in the manor houses, and the

¹ See Ashley, W. *An Introduction to English Economic History and Theory*, Vol. I, Part I, pp. 40-43.

floor was made out of dirt. Just outside the door was the "mixen," a conglomeration of every kind of manure and refuse, an eyesore and a plague-brewer.

The dress of the peasants who inhabited these crude quarters was poor. It resembled that of the lower town classes and consisted chiefly of a tunic of coarse linen and knee breeches. Women wore the usual tight-fitting undergarment and loose-sleeved gown. In the fields the shepherd toiled in a sheep-skin coat and the plowman drudged in a ragged tunic of coarse cloth. His shoes, hood, and loosely fitting hose were frequently full of holes. His wife in a short coat and an old sheet for protection from the wind tried to goad the oxen on as together man and wife laboriously proceeded with the spring plowing.

But to this gloomy picture some bright tints may be added. The houses being close together, there were opportunities for social life, opportunities furthered because the men worked side by side in the field. On feast days peasants surfeited themselves with food and drink, and at harvest time the lord supplied beer and at times bread. With the development of towns, markets, and fairs occasional visits added to the variety of life.

Although life was rude and rough, the villagers were happy and little worse off than their nineteenth-century descendants. And the medieval laborers, though more poorly clad and worse-housed, were better off in food than laborers of the last century. They, moreover, had a larger proportion of the conveniences of that age than the peasants of the early twentieth century had of their age. Yet the frequent revolts of the peasants, especially those in Holland, France, and Germany, indicate that the peasants in various parts of Europe were dissatisfied with their lot. To think otherwise would reveal an ignorance comparable to that of the young wife who thought that a caboose was an Indian baby.

Town Life.—Here and there in southern Europe were fine towns and beautiful buildings. Moorish Cordova of the tenth century was probably the most modern city in Europe. Factories and workshops were common, streets were paved, and sidewalks were elevated. If the accounts are correct, "one

could travel for ten miles by the light of lamps along an uninterrupted extent of buildings.”² Flanders, like Spain, had some prosperous towns and fine buildings. Constantinople and some of the Italian towns also revealed the best possibilities of the age. Yet town conditions in most of Europe were entirely different. The need of stone walls for protection crowded the houses too closely together. And so the streets were narrow and dark. Street lights, a city water supply, sewerage, street cleaning, paving, and police protection were alike unknown, or at least rare. Dead animals rotted everywhere in the streets and all sorts of refuse were thrown even from second stories, exposing passersby to sudden showers and making the wooden overshoes worn by the saints in pictures a necessity. On one occasion, so it is said, a German emperor received a warm reception in a loyal city, but he and his horse almost drowned in the bottomless filth as they entered the gates. In 1387 Frankfort legislated against the building of pigsties in the streets and a little later Ulm was bothered by promiscuously running swine.

Even when the towns were prosperous, we must bear in mind that the prosperity was not for all and that life was full of perils and of vexatious regulations. The poorest classes, were “a dense slough of stagnant misery, squalor, famine, loathsome disease, and dull despair.” Rioting was common, night visiting was dangerous, and houses were fortified because police were inadequate. The citizens had to observe the curfew law because fires were especially dangerous in the narrow streets, plant only the prescribed number of trees in their gardens, serve as guards on the walls, or streets, or elsewhere in turn, and wear clothing becoming to their station in life.

Yet the sumptuary laws which attempted to regulate dress met with little success. So the use by the well-to-do of Italian silks, the finest of Flemish cloth, velvet, and furs, long-flowing and elaborately embroidered gowns, and boots with long pointed toes fastened to the knees by silver or gold chains, and elaborate female headdress continued. Aldermen wore fur-lined red robes and craftsmen wore their elaborate livery

² See Thompson, J. W. *An Economic and Social History of the Middle Ages*, p. 549.

with silver ornaments on knives, girdles, and pouches. Towns-men wore the long gowns of different colors with a girdle at the waist. Some of the merchants affected the large Flemish beaver hat, a long tunic with embroidered edges, boots of Cordovan leather, and a long flowing coat. On the other hand, the poor men wore short tunics, long hose, knee breeches, and caps or hoods. Most men wore their hair in large thick side locks and covered it with a turban or hood, known as a round-let, and attached to a long tippet or liripipe. Boots were very broad at the toe, sumptuary laws finally limiting the breadth to six inches. Women in good circumstances wore long sweeping dresses with flowing sleeves, but poor women had short gowns and short tunics, brevity in costume usually being a sign of poverty. Fantastic hair dressing, kerchiefs, and gold lace already were supplanting long plats of hair and wimples.

In that early period, as now, men liked to criticize the toilet of women. The Bishop of Paris, for example, early in the fourteenth century denounced extravagant dress, bare necks, and horns. The horns filled with false hair, one on each side of the head, especially aroused his wrath. He claimed that they excited ridicule, that they were carried "to kill men," and that they imitated dumb beasts. "By the faith I owe St. Mathurin!" he cried, "they make themselves horned with platted hemp or linen, and counterfeit dumb beasts." He even offered ten days' pardon to anyone who would cry out on the approach of such an immodestly toiletéd woman, "Beware of the ram! Beware of the ram!"³

In the fifteenth century, but not because of clerical denunciations, we may be sure, from horn-shaped, heart-shaped headdress the style passed to the steeple or sugar-loaf type.

All town classes enjoyed such sights as bull-baiting, bear-baiting, cock-fighting, and throwing at poultry loosely fastened to stakes in the ground. Boys played football and similar games even in the town streets, for then, as now, the skin that many a young man loved to touch was the pig-skin. Nine-pins, battledore, and shuttle-cock, hoops and tops were popular in English towns. Girls skipped and danced then as now. Both girls and boys enjoyed skating, at first with skates

³ See the *Archæological Journal*, March, 1844, Vol. I, pp. 45-48

made from the shin bones of animals. The skater used an iron-shod pole in helping himself along. Sleds consisted of large smooth pieces of ice, on which boys and girls sat, while their companions hand in hand drew them over the ice.

Military games were highly regarded, archery being a favorite, for on Sunday law required that football and tennis be dropped for it. Jumping, dancing, wrestling, casting the stone, and quarter staff, as well as archery, were all encouraged to develop physical strength. Horse racing and tournaments were also very popular. Tilting was practiced by those who were able to fight on horseback. A shield and a bag of sand were fastened on a beam of wood which revolved on a pivot. If the tilter failed to hit the shield squarely, he was laughed at; if he moved slowly, he was struck by a bag of sand. A somewhat similar game was played on the Thames, a shield being placed on a pole in midstream. A youth would enter a boat without oars, allow himself to be carried toward the shield, and attempt to break his lance by striking the shield squarely.

Feast days, bonfires, and dancing were of particular interest, one of the most general being the May-pole with its various amusements. Jesters, jugglers, acrobats, and minstrels entertained the people at the fairs. Pageants and processions were exceedingly popular, royal marriages, coronations, royal births, royal visits, victories, and the selection of a new mayor all offering opportunities for such festivities.

Even more popular than are movies with us were the miracle and mystery plays. By them the clergy at first and later the town gilds sought to impress religious truths upon the minds of the people. In the fourteenth century the miracle plays were used to illustrate some event in the life of a saint and the mystery plays were connected with Bible history. Some actors combined high reverence and coarse fun. Noah's wife was pictured uniformly as a scold and Herod was regarded as an egotistical boaster. The stages for these plays were two or three stories high and movable; they were drawn through the streets to the appointed places, which might be the open market places or the public greens. Scaffolds, stands, and near-by windows and roofs accommodated the spectators.

The first act began about six o'clock in the morning. Actors and stage were then moved on to the second station where the act was repeated. The second act was then given at the first station and the rotation continued until the cycle had been completed, usually requiring all of a long summer day, and at times even three to eight days.

Some Drawbacks to Life.—Even in England, more peaceful than most European countries, and even for the upper classes, life held many drawbacks. The *Paston Letters* are brimful of uncertainties of life, civil war, robberies, seizure of manors, murders, and complaints relative to high taxes and the low prices of farm products.⁴ They also comment on the high mortality rate from disease.⁵

Perhaps, however, the outstanding drawback of the fifteenth-century English was the absence of marked family affection. During the reign of Henry VII a Venetian ambassador commented on the coldheartedness of parents toward their children, the lack of tenderness of husbands for wives, and the mercenary way in which relatives or guardians sought to contract marriages for the young. The ambassador referred to licentiousness, but expressed a doubt as to whether any one in high or low society had ever really been in love. He himself referred to young noblemen content to marry old widows with cash and he expressed the suspicion that many jealous English husbands would condone the most serious offenses against married life for money.⁶

Although the treatment of children may not have been so severe as the Italian ambassador thought, many parents regarded children, especially girls, as a mere burden. They were sent away from home to learn manners and to be kept out of the way. Margaret Paston, a devout woman, expressed regret that her daughter Anne was to be returned by her Cousin Calthrop and asked her son John to secure another place for her.⁷ Elizabeth Paston, in 1449 or earlier, received brutal treatment from which marriage seemed the only escape. And so she, though only twenty, was anxious to marry

⁴ See Gairdner, James. *The Paston Letters, 1422-1509* (Chatto and Windus, London, 1904) Vol. V, p. 233.

⁵ See *Ibid.*, Vol. V, p. 110.

⁶ *Italian Relation of England* (Camden Society), pp. 24-27.

⁷ Gairdner, James (Editor). *The Paston Letters*, Vol. V, p. 92.

a disfigured widower who was close to fifty and who had sold a little daughter to a knight. Before condemning the young lady for desiring a marriage which never occurred we should ponder Elizabeth Clere's letter to John Paston:

"...And if ze can geta a better (husband), I would avyse zow to labor it in as schort tyme as ze may goodly, for sche was never in so gret sorow as sche is now a dayes, for sche may not speke with my man, ne with servauntes of hir moderys but that sche bereth hire an hand (assert) otherwyse than she menyth. And sche hath sen Estern the most part be betyn onys in the weke or twyes, and sometyne twyes on a day, and hir hed broken in to or thre places. Wherfor, cosyn, sche hath sent to me by F'rere Newton in gret counsell, and preyeth me that I would send to zow a letter of hir hevynes, and prey you to be hir good brothyr, as hir trust is in zow; and sche seith, if ze may se be his evydences that his children and hire may enheryten, and sche to have reasonable joynture, sche hath herd so mech of his birth and his condicions, that and ze will sche have hym, whethyr that his moder wil or wil not, not withstandyng it is tolde hir his persone is symple, for sche seyth men shull have the more deute of hire if sche rewle hire to hym as sche awte to do.⁸

Social Conditions in the Backward Regions.—On the whole, conditions were most backward in Scandinavia, Russia, and the Balkans. In the northern region there was little or nothing to compare with the cathedrals of England and other countries. Life then had fewer conveniences for the people than it now holds in the same region for hogs. Russia and the Balkans outside of Constantinople were equally backward. Vladimir in 987, on the advice of his boyars and elders, sent an embassy to study the religion of the Bulgars, Germans, and Greeks. Their report, according to Nestor, was:

First we went to the Bulgarians and we observed how they worship in their temples, they stand without girdles, they sit down and look about them as though they were possessed by the demon, and there is no gladness amongst them, but only sorrow and a great stench; their religion is not a good one. We then went to the Germans, and we saw many services celebrated in their temples, but we saw no beauty there. Then we came to the Greeks, and they took us where they worshipped their God, and we no longer knew whether we were in heaven or on earth, for there is nothing like it on earth, nor such beauty, and we know not how to tell of it; we only know that it is there, that God dwells among men, and their service surpasses that of any other land. We can never forget its beauty, for as every man when he has tasted sweetness cannot afterwards endure bitterness, so can we no longer dwell here.⁹

⁸ *Ibid.*, Vol. II, p. 110. Erasmus, however, denied the lack of family affection and insisted that the English were polite and respectful to their parents and those in authority.

⁹ *The Historians' History of the World*, Vol. XVII, p. 104.

As typical of a backward mountain community, yet one superior to Scandinavia, Russia, and the Balkans, we may note briefly some of the laws and customs of the Swiss towns and people. Basel in 1441-1442 forbade playing dice in guilds or clubhouses. Betting stakes were limited to four or five pence and guests were to be sent home by nine o'clock at night. The Federal government in 1481 attempted to prevent men from wearing short jackets by imposing a fine of one gulden. In 1488 Zurich passed an ordinance restricting the use of luxuries, especially of buckles, rings, and silk, a fine of two marks being imposed for each offense. In the same year Zurich limited wedding feasts to one day, as Basel had done in 1441-1442. Dancing was prohibited regularly, a Zurich decree as late as 1500 reading: "In order that God the Lord may protect the harvests which are in the field, and may give us good weather, let no person dance."¹⁰

Balcus, an ambassador from Milan, at the very beginning of the sixteenth century, declared that the Swiss were "unhewn barbarians," "accustomed to robbery," given to "extravagant generosity to the poor," wasteful of time,—spending "two or three hours at table eating their many dishes and barbarous spices with much noise and conversation,"—presenters of wine daily to ambassadors, both givers and receivers of bribes, but also observers of certain laws and customs. The following paragraph shows his opinion of the people in general:

Custom allows that women, who on account of the beauty of their faces, and the attraction of their persons are uncommonly lovable, may be embraced and kissed anywhere and by anybody without distinction. The cultivation of the intellect is rare and the noble virtues receive no honor. This low-born people, this lot of peasants, born in mountains and woods and brought up in a narrow hole, have begun to play the lord in Europe, and think nothing of enlarging the borders of their own dominion if any one allows the opportunity to do so. Moreover, there is no doubt that wars, peace, the victories and the misfortunes of famous kings depends upon them. This little band of cowherds and shepherds, who pass the day in the drawing and the thickening of milk; who are so to speak, without law and ignorant of things human and divine; will prescribe laws for all others and sit in judgment on the affairs of princes, as though the appeal and the

¹⁰ See Vincent, J. M. *Switzerland at the Beginning of the Sixteenth Century* Johns Hopkins University Studies in Historical and Political Science (The Johns Hopkins Press, Baltimore, May, 1904) Series XXII, No. 5, pp. 24-26

highest judgment belonged to them. For assumption and violent passion, the diseases which are so near to madness, they surpass all other mortal beings, but among themselves they agree so well together that as a reward and fruit of their unity they enjoy an undisturbed and continuous freedom, to which indeed the quarrels of others have given assistance.¹¹

Life of the Upper Classes.—At every ford, mountain pass, and commanding hill rose the castles of the manorial and feudal lords of the Middle Ages. From wooden blockhouses into massive stone buildings virtually impregnable to every danger except hunger and thirst they developed. Moats crossed by narrow drawbridges, massive iron gates guarding the castle and giving access to it, battlements rising from the castle walls, and flanking towers commanding all possible approaches added to the security of the owners.

The keep, to which the lord and his family often had access by a small postern gate in the outer wall, was the residence of the lord's family. Its walls, sometimes fifteen or twenty feet thick and often concealing the winding stairway which led to the upper floors, increased still more the security and the isolation of the owner.

The clothing of the nobility and the gentry who occupied these dreary castles was very elaborate and costly. Heavy embroidered tunics, girdled or belted at the waist, short breeches and close-fitting hose, or loose bandaging held in place by cross gartering, were worn by the men, hose becoming more popular as time passed. Woolen and cloth stockings, boots and shoes, the latter fastening by one button over the ankle, were general. Caps were used and hooded cloaks increased in popularity, particularly with the lower classes. In bad weather a cloak lined with the finest fur and fastened over the right shoulder with a brooch afforded protection for the rich.

Women used an undergown with long tight sleeves; over it was a loose garment with long, wide, and frequently elaborately embroidered sleeves. A girdle, perhaps jewelled or richly ornamented, fastened the gown. Before the Norman Conquest married women wore a head rail of linen or silk. In the thirteenth century they used a gorget or wimple of sim-

¹¹ See *Ibid.*, Series XXII, No. 5, pp. 16-18.

ilar material which covered the chin, neck, and sides of the face much as the nun is covered now.

Life lacked our present-day variety. The ladies embroidered, talked, and sang. Chess was indulged in by many. Such animals as the bear, the deer, and the wild boar were hunted with dogs and after they had been brought to bay were killed by the hunter with a short sword or javelin. Herons, wild ducks, and rabbits were hunted with trained hawks, and even women sometimes went on long journeys with a hawk on their wrists. The falconers who trained the hawks to bring back their prey were highly esteemed officials.

But the favorite sport of the Middle Ages was the tournament, a sort of mock battle which took the place of the gladiatorial combat of the Roman age. Many combatants fought for fame, many fought for fortune, the victor taking horse and armor and exacting ransom from the vanquished. The contestants struggled before the eyes of crowded balconies gay with the colors of the women and other spectators. At times single combats, on foot or on horseback, prevailed, at times groups fought, and at times small armies met.

In the eleventh and twelfth centuries chivalry developed. The candidate for knighthood was trained, first as a page and then as a squire. At the age of seven the boy was sent to a noble whose wife he served for seven or eight years, running errands, waiting table, and the like and learning courtesy, obedience, and respect for religion and ladies. Later as a squire he supervised the care of the lord's horse and the cleaning of his armor, accompanied his lord to the hunt, prepared him for battle, bore his shield, went with him to the battle, and looked after his safety as much as possible.

At the age of twenty or twenty-one the candidate was ready for knighthood. He bathed in token of purification, fasted, stated his sins to a priest, and spent the night in prayer. The next morning in the presence of all the nobility of the castle and the visiting ladies and knights he knelt before the lord and vowed to be courageous and kind, a protector of the Church, the ladies, and the distressed, especially the widows and the orphans. The lord hit him lightly on the shoulder with the flat of his sword, saying: "In the name of God, of St.

Michael, and of St. George, I dub you knight." The knight thereupon rose to his feet, mounted his new charger, and showed his skill in arms and riding. The festival was concluded with games, feasting, and gift exchanging.

A very large part of life was occupied by feasting. Tables were laid on movable trestles and around them gathered household, visitors, and dependents, on seats or benches, arranged according to rank, with the lord and his most highly esteemed guests at the head and with the lowest servants at the bottom of the line. Peacocks, swans, boars, deer, and blackbirds were favorite meats. Each guest was supplied with a knife and a spoon, but fork, napkin, and plate were lacking. Into the pasties hands were dipped and carried direct to the mouths. Bread was used to wipe off the surplus gravy, the whole being thrown to dogs under the tables. After each course servants passed around with water and towels. Wine, often heavily diluted with water, especially for the lower classes, was used to wash down the food. Between courses story telling and the rude jokes of the lord's jester or fool added to the merriment.

Although Edward I had a fork which he kept among his jewels and although indications of forks occur in the thirteenth and fourteenth centuries, most people long depended upon their fingers and knives. In truth, the blades of knives were made broad and round at the end in order to convey food to the mouth. A Middle Age manuscript, "the boke of Keruyng," gives precepts for the carver: "Set never on fyshe, flesche, beeste ne fowle more than two fyngers and a thombe" and "your knyfe must be fayre and your hands muste be clene, and passe not two fyngers and a thombe upon your knyfe." White linen table cloths are represented on illuminations in England in Anglo-Saxon days, but apparently were not common for some time. Table napkins also came comparatively late. Carpets were introduced in the thirteenth century, but few dining rooms contained them until many decades later.

That large crowds or gluttony, probably both, appeared frequently seems evident from the fact that King John ordered two furnaces or grates for his kitchens at Marlborough and Ludgershall, each furnace or grate being sufficiently large to roast two or three oxen at the same time. The spit was re-

volved above the fire.¹² Great indeed, must have been the dinner of the archbishop of York, at least if the following quotation is a good criterion:

The following is a true copy of the original lodged in the Tower of London.

Yours, M. N.

July 18, 1760

George Nevil, brother to the great earl of Warwick, at his installment into his archbishopric of York, in the year 1470, made a feast for the nobility, gentry, and clergy whereon he spent

300 quarters of wheat, 300 ton of ale, 104 ton of wine, 1 pipe of spiced wine, 80 fat oxen, 6 wild bulls, 300 pigs, 1004 weathers, 300 hogs, 300 calves, 3000 geese, 3000 capons, 100 peacocks, 200 cranes, 200 kids, 2000 chickens, 4000 pigeons, 4000 rabbits, 204 bitterns, 4000 ducks, 400 herons, 200 pheasants, 500 partridges, 4000 woodcocks, 400 plovers, 100 curlews, 100 quail, 100 egrets, 200 rees, 4000 bucks and does and roe-bucks, 155 hot venison pasties, 1000 dishes of jellies, 4000 cold venison pasties, 2000 hot custards, 4000 ditto cold, 400 tarts, 300 pikes, 300 brems, 8 seals, 4 porpusses.

At this feast the earl of Warwick was steward, the earl of Bedford treasurer, the lord Hastings comptroller, with many noble officers servitors 1000 cooks, 62 kitcheners, 515 scullions.¹³

SELECTED REFERENCES

Boissonnade, P. (Fileen Power Translation). *Life and Work in Medieval Europe* (New York, Alfred A. Knopf, 1927) Book I, Chapters I-III.

Chapman, C. E. *A History of Spain* (New York, The Macmillan Company, 1925) Chapter XII.

Cunningham, W. *The Growth of English Industry and Commerce During the Early and Middle Ages* (Cambridge, The University Press, 1922) Part I, Section I.

Evans, Joan. *Life in Medieval France* (London, The Oxford University Press, 1925) Chapters II-IV and V and VII.

Köhler, Carl and Sichart, Emma Von (A. K. Dallas Translation) *A History of Costume* (New York, G. Howard Watt, 1928) Parts II and III.

Seignobos, Charles (E. W. Dow Translation) *The Feudal Regime* (New York, Henry Holt and Company, 1927) Chapter I.

Sellery, George C. and Krey, A. C. *Medieval Foundations of Western Civilizations* (New York, Harper and Brothers, 1929) Chapters VIII and XVIII.

Taylor, E. O. *The Medieval Mind* (London, Macmillan and Company, 1911) Vol. I, Chapters VII and VIII.

¹² *The Archaeological Journal*, June, 1845, Vol. II, pp. 173-180.

¹³ See *The Annual Register*, 1760 (London, 1781) Vol. III, B, p. 173.

CHAPTER VIII.

THE INFLUENCE OF THE CHURCH

Introduction.—Thriving upon persecution the Church became the state religion in the days of Constantine and the fiery cross. Its zealous missionaries,—Ulphilas, St. Patrick, Columba, St. Augustine, Columbanus, Boniface, Willibrord, and Ansgar in the West and the North and Cyril, Methodius, and a host of other heroic men in the East,—were carrying the Gospel to those who had heard it not. And by 1000 Europe was nominally Christian.

Meanwhile Rome was developing a government in religious affairs. Its prestige increased when Constantine moved his capital to Constantinople. As Carthage, Jerusalem, Antioch, and Alexandria declined, Rome had no important rival except Constantinople. The struggle between those two churches, beginning in 451, led eventually to separation into the Eastern Church and the Western Church in 1054, but not until 1073 was the title "pope" applied exclusively to the western ruler. That individual's power, temporal as well as spiritual, had increased. Pepin, appointed king of France, by the pope, defeated the Lombards and turned over some of their lands to the pope. The decretals,—canons of councils, papal decrees, and letters,—appearing under the name of Isidore Mercator, exalted the power of the bishop of Rome. That power reached its zenith in the days of Gregory VII, or Hildebrand, and Innocent III.

Below the pope in authority were the patriarchs, archbishops, bishops, priests, and minor officers. Resplendent in their distinctive robes and their insignia of office the high church

officials dominated their church councils and clergy. But the priest, recognizable by his close-fitting cassock gown and tonsured head, married, absolved, and buried. Assisting him were the acolyte and the deacon, the first wearing a tight-fitting linen garment and white tunic and carrying a taper, a pitcher, and a napkin, and the deacon adding to the insignia of lower offices the stole, a narrow embroidered band on his left shoulder, and carrying the Gospels.

Monachism, also a phenomenon of church organization, had its origin in two main ideas,—“the essential evil of matter” and “salvation by works.” It manifested itself at first in the solitary anchorite who often dwelt under indescribable conditions of physical impurity in order to preserve his spiritual purity, second in the small religious communities, and third in the large groups represented by such organizations as those of Pachomius, 292-348, and of Benedict, 480-543. Rapid growth and the formation of other orders, despite the Cluniac revival of the tenth century, were followed by stagnation, increase of material wealth, as usual, leading to a decline of spiritual fervor. The twelfth century and the early part of the thirteenth century, nevertheless, witnessed a temporary spiritual awakening through the work of St. Bernard, of St. Francis of Assissi, and of St. Dominic.

The Church of the Middle Ages exerted a greater influence on the lives of the men and the women than the Church of Today exerts. Everyone virtually belonged to it and in one or more ways,—rents, gifts, tithes, Peter’s Pence or the like,—contributed to it. The people lived in the atmosphere of other worldliness, namely, that life here is simply a preparation for the life of the hereafter, and the span of that life was less than half of life’s span today. The Church, moreover, performed the functions of a state, having its own prisons and even sentencing to life imprisonment.

And so people paid attention to the teachings of the Church. In baptism the Fathers taught that sin was washed away and in the Lord’s Supper, or Eucharist, that the actual body and blood of Christ were eaten and drunk and that salvation could come only to those who received sacraments. The teachings of the church, supported by Scholasticism and expounded by

the logic of such men as Anselm and Thomas Aquinas, received their main power through the popular fear of excommunication or interdict, the former of which denied the sacraments and Christian burial to individuals and the latter of which closed the churches in an entire district or nation and prohibited all sacraments except baptism and extreme unction.

The Church and Labor.—The casual reader of Paul's letter to Philemon would take the injunction to receive Onesimus, a run-away servant, as a "brother beloved," as implying that the Church stood for freedom and for fair treatment. In the early days it did appeal to the down-trodden artisans, serfs, and slaves, in short, to the lowly of all classes. Its clergy, too, long professed to idealize poverty and preached sermons on love, the "blessed poor" and the "blessed meek."

Yet the "Church by the fourth century had become a rich and aristocratic corporation." It had adopted the policy of exalting the blessings and the bliss of the hereafter in an effort to reconcile the oppressed with the sufferings of the now. A tenth-century bishop of Verona even urged the serfs to see an ordinance of God in their bondage: "God has mercifully destined those to slavery for whom He saw that freedom was not fitting."

Although, at times, as in the sale of the Christian captives in the Mohammedan markets, the Church complained of the slave trade, seldom did its leaders protest slavery itself. Little or no protest appeared against selling Christian or pagan slaves to Christians. The Church, moreover, owned slaves, the large monasteries often having hundreds, and even the priest in Charlemagne's day possessing two slaves,—a man and a woman. The Church even imposed restrictions on the freeing of slaves and created slavery where Roman law had not created it. Bishops could not free church slaves unless they paid for them out of their own money and ex-slaves who had become priests were at times reduced to slavery again. Conspiracy and treason were declared punishable by slavery, a sentence applied also to the descendants of the culprits. Women of Spain were condemned to slavery for immorality, and women of the lower classes were made slaves for the desertion of their husbands. Charlemagne's laws gave sooth-

sayers and diviners to the Church as slaves. Church officials at times even mutilated slaves or starved them to death. The Church, too, allowed concubinage; for example, if of a married couple in slavery one obtained freedom and the other could not, the one who had been freed could form another marriage alliance.

The Church not only upheld slavery; it supported serfdom. Even after secular rulers had begun to emancipate the serfs, the Church held back. Examples of general enfranchisement are lay, not clerical. In fact, the emancipation of serfs, like that of the slaves, was prohibited by canon law unless compensation was given. Maitland and Pollock even insist that the "secular lord was more humane than the soulless corporation," "because he was more human, because he was careless, because he wanted ready money, because he would die." The harsh treatment of the serfs by the chapter of Notre Dame de Paris in the days of St. Louis led Queen Blanche to voice a humble protest. When the inhuman monks replied that "they might starve their serfs as they pleased," the queen forced open the gates of the abbey and liberated the serfs. Additional proof of the cruel treatment often given to the serfs on church land appears in the frequent peasant insurrections of the thirteenth and fourteenth centuries, insurrections invariably provoked by excessive ecclesiastical, not lay, exactions.

The Church in her numerous establishments employed thousands of wood-turners and carpenters, dyers, weavers, and wool-carders, metal workers, cobblers, harness-makers and saddlers. To this serf labor the Church stubbornly clung long after the remainder of the world had recognized the greater profitableness of free labor. Naturally, therefore, the Church opposed the formation of craft guilds. Naturally, too, the free workers at times questioned religion and resented the competition of the church serfs. Bishops and abbots alike, but especially the latter, sold their wares on the local markets at prices too low for the free workers to meet because the Church paid low wages and enjoyed exemption from taxation, including the market dues.

Influence of the Church on Agriculture.—The Church, on

the whole, by restricting warfare stimulated agriculture and industry. Then, too, in its monastic establishments it carried on a large-scale agriculture. Palladius, writing about 390, describes the great Egyptian monastery in Mount Nitria. This establishment owned thousands of acres of fine land and supported five thousand monks and hundreds of "lay brothers." It raised dates, olives, and various grains and also camels, cattle, horses, mules, and sheep in large numbers. A large surplus of its products went to the Alexandrian markets, thus slowly strangling the small farmer and undermining the landed proprietors.

European establishments seldom attained the power and the wealth of the Egyptian monasteries. Yet all over Europe wealthy sinners and others made grants to the monasteries, often of land devastated by war. By the industry and the perseverance of the monks this land was restored in large part to cultivation. Says Guizot: "The Benedictines have been the great clearers of land in Europe. A colony, a little swarm of monks, settled in places nearly uncultivated, often in the midst of a pagan population, in Germany, for example, or in Brittany; there at once missionaries and laborers, they accomplished their double purpose through peril and fatigue."¹ In the sixth and seventh centuries the disciples of St. Columban reduced northeastern France to cultivation.

Although as time passed the zeal for manual labor declined in some of the monastic orders, new orders came into being. Of particular importance are the Cistercians who date from 1098. They deliberately sought out the remote regions, tracts naturally in forests and marshes. To the wilds of Northumberland, to the moors of France's Biscayan coast, to the gorges of the Alps and the Vosges, and to the eastern frontier lands of Germany journeyed the intrepid Cistercians. And everywhere came crops for weeds, cattle and sheep for wild animals, beautiful churches and comfortable dwellings for naked moors and wild woods. Of the Cistercians in Yorkshire, England, some one has said: "They turned the waste land into good land; they planted the trees; they improved the streams; they made

¹ Quoted in Hallam, Henry. *View of the State of Europe During the Middle Ages* (John Murray, London, 1901) Vol. III, p. 360.

corn grow where thistles had sprung unchecked; they filled the meadows with cattle and stocked the uplands with sheep."² Better farmers than were other orders the Cistercians raised various grains, cut hay and fodder for their cattle, bred cattle, horses, and sheep, and in the Rhine and Necker Valleys attained considerable success in grape culture and wine-making.

The *Domesday Survey* in England, to the minds of many critics, indicates also "that the cultivation of the church lands was much superior to that of any other order of society." Apparently such lands had less wood and less common than had other holdings, and the meadow, the most valuable of the lands, was more abundant than it was on the other holdings. An abbot of Croyland, under the Conqueror, shows evidence of improvement. A neighboring lord, being fond of farming, obtained permission from the abbey to enclose part of a marsh as a separate pasture. He built a strong dike to shut out a neighboring stream, thereby making "those stagnant fens a garden of Eden." Inhabitants of neighboring villages followed a similar course; hence marshes were converted into pasture or arable farming land. The Church in England, as elsewhere, practiced tillage, the clearing of woods, the plowing of wastes, and the draining of marshes, thus increasing the arable land.

Influence of the Church on Manufactures.—In Egypt around Tabenna in the Thebaid, if Palladius is trustworthy, lived in the fourth century seven thousand monks, about thirteen hundred in the monastery in which Pachomius lived, who, as did their brothers in Europe, encouraged manufacturing as well as agriculture. Each monk had a definite task. Palladius declared:

Some worked in a paradise (orchard) and some in the gardens and some in the blacksmith shop and some in the bakeshop and some in the fuller's shop and some wove baskets and mats upon leaves, and one was a maker of nets and one was a maker of sandals, and one was a scribe. All these men as they were performing their work were repeating the psalms and the scriptures in order.³

The Benedictine Order, founded about 528, condemned idle-

² Quoted in Thompson, J. W. *An Economic and Social History of the Middle Ages*, p. 611.

³ *Ibid.*, pp. 140, 141.

ness as the "great enemy of the soul" and recommended that monks should be occupied "either in manual labor or in sacred reading." The monks preserved far better than did the lay nobles the manufactures of the old civilizations. They improved, if they did not invent, beer-making and developed wine-making. Bell-founding and lead pipe industries were also important occupations. Some clericals, especially the Celts, were skilled in such arts as basket-making, leather-working, and metal work, particularly gold-smithing.

In England the larger monasteries, such as St. Edmunds or Glastonbury, were noted industrial centers. The monks or foreign artisans introduced by them improved the arts of embroidery, weaving, and glass and metal work. Glass-makers were early brought from Gaul to glaze church windows, and writing and illuminating were introduced by early missionaries. Lock-making and other forms of metal work were carried on by the monks. Industrial work, moreover, was made a pious duty. Bede declared in his *Lives of the Abbots of Wearmouth*:

It was a pleasure to him, obediently to be employed along with them in winnowing and grinding, in milking the ewes and cows, in working in the bakehouse, the garden and the kitchen, and in every other occupation in the monastery. . . . Frequently, when he went out anywhere for the furtherance of the business of the monastery, whenever he found the brethren at work, it was his custom to join them forthwith in their labor, either by directing the plow handle, or working iron with the forge hammer, or using the winnowing fan in his hand, or doing something or other of the same sort.⁴

In France, too, the importance of the Church in industry was manifest. Artisans sought the monasteries and episcopal establishments as places of refuge from prevalent lawlessness. In the ninth century the Abbey of Saint Riquier was the nucleus of about twenty-five hundred houses and perhaps sheltered four times that many people. Part of the settlement was devoted to the artisans, who were arranged in streets, and included "wholesale merchants, smiths, shield-makers, saddlers, bakers, shoemakers, butchers, fullers, furriers, wine merchants, beer sellers." Each craft was compelled to furnish

⁴ See Cunningham, W. *The Growth of English Industry and Commerce During the Early and Middle Ages* (The University Press, Cambridge, 1922) p. 71.

some of its products to the monastery. In the eleventh century the cartulary of Saint Vincent at Le Mans mentions: "merchants, carpenters, weavers, various kinds of workers in gold and silver, tailors, shoemakers, butchers, bakers, wax-makers, smiths, drapers, furriers, linen merchants, leather merchants, salt merchants, glass-setters."

The fine churches and noble monasteries erected all over Europe, of course, supplied work for artisans of various kinds. As the wealth of the clergy increased they demanded better clothing and better buildings. Bells were needed for the churches, lead for the church roof, gold and silver for inside decoration, fine glass for the windows, and painting and sculptural work for the interior. Everywhere work was supplied, and though occasionally the too frequent holidays interfered with industry, the influence of the Church was favorable to manufactures as it was to agriculture.

Early Attitude toward Commerce.—Developing in the closing days of the Roman Empire when the generally accepted god was Mammon, the Church naturally set its face against material prosperity. Many of the Christian Fathers entirely condemned the pursuit of gain, and some went even further and denied the individual the right to use his own wealth as he pleased. If the quest of individual riches was sinful, was commerce itself justifiable? Tertullian argued: "If covetousness is removed, there is no reason for gain, and, if there is no reason for gain, there is no need for trade."⁵ St. Jerome argued that because a trader did not seem to add to the value of his goods he gained more than he paid and his gain was another's loss. He believed, moreover, that trade was dangerous because a merchant could scarcely avoid being deceitful at times. St. Augustine in common with many others emphasized the spirit of "other worldiness" in a way that sent thousands out as hermits or to the monasteries. He seemed to consider business an evil in itself because "it turns men from seeking true rest, which is God."

Church Teachings on Just Price and Interest.—St. Thomas Aquinas, the greatest of the schoolmen, held that in any coun-

⁵ See Ashley, W. J. *An Introduction to English Economic History and Theory*, Vol. I, Part I, p. 128

try at any time there was a just price for every article and that price should not vary with temporary demand or supply, individual wishes, or skill in bargaining. The moral duty of both buyer and seller he considered the determination of that just price. The seller, he insisted, should state the flaws or defects in the articles if such existed. The fixation of the just price he did not clearly define, but he apparently allowed the price paid by the merchant, the expenses of transportation, and the gain necessary to secure to the merchant the necessities public opinion regarded as essential for a man in his station in life.

In the teachings on usury the Church drew more directly from the Bible than it had drawn in the doctrine of a just price. It tried to enforce the implication of *Luke 6:35*, "Lend, hoping for nothing in return," overlooking the words of *Matthew 25:27* and *Luke 19:23* which seemed to show that Christ approved the taking of interest. The prohibition against lending money at usury applied at first only to the clergy, the Council of Nicaea in 325 imposing degradation for violation. The capitularies of Charlemagne and the ninth-century councils extended those prohibitions to the laity. In the thirteenth century the Church began to provide other penalties than spiritual penalties for the taking of usury and in 1311 Clement V declared all secular legislation favoring usury null and void and labeled as heresy the belief that usury was free from sin. Church condemnation of usury naturally influenced public opinion to some extent. A condemnation of usurers appears in the following story:

It befel at Dijon, about the year 1240, that a certain usurer would have celebrated his wedding with much rejoicing; and, having been led with instruments of music to the parish church of the blessed virgin, and standing now under the church portal that his bride might give her consent and the marriage be ratified according to custom by the promise "I do," and so the wedding might be solemnized in the church by the singing of mass and other ceremonies—while this was there being done, I say, and the bride and the bridegroom should have been led with joy into the church, a certain usurer carved in stone upon the portal above, whom a carven devil was bearing to hell, fell with his money-bag, upon the head of this living usurer who should have been married, and crushed and slew him; so that the wedding was turned to mourning, and their joy to lamentation, and the living man was thus shut out by the stone image from that entrance into the church, and those sacraments, from which the priests not only did not exclude him but would have led him in. Then the

usurers, or other citizens, by dint of bribes, procured the destruction of the other graven images which stood without on the forefront of the said portal, which I myself have seen there broken away, lest a like fate might befall them or others under like circumstances.⁶

Despite harsh edicts and the popular condemnation the Church apparently always had allowed moderate interest, which it regarded as indemnification for damage suffered by the lender because of the loan. About the middle of the thirteenth century Innocent IV also admitted as legal the interest charges for the use of industrial and commercial capital if there appeared to be a risk of loss or if other gains were sacrificed. In the same century, moreover, the papacy protected the Italian bankers, granting them the use of the Church and threatening their debtors with ecclesiastical penalties if they did not pay.

Actual Influence of the Church on Commerce.—The outstanding example of a fourth-century business man is George of Cappadocia, bishop and broker-banker of Alexandria. He speculated in wheat, perfected a "trust" to develop the niter deposits of the Egyptian desert, secured a corner on the salt trade, obtained control of marsh land suitable for papyrus and calamus from which paper and pens were made, and organized a company to monopolize the Alexandrian funeral business.

Other rich officials likewise engaged in commerce and banking. The canonical prohibition with regard to interest was a dead letter to them. Officials argued that because the monastery was a corporation rather than a person no sin could attach to the charging of interest. The Crusades stimulated the mortgage business, for suddenly religious nobles needed ready cash and the monasteries drove harsh terms. When Richard I of England was ransomed in 1192 and Louis IX of France was ransomed in 1248, the monasteries of the two countries advanced a large part of the money, taking as security mortgages on the lands of the feudal nobility. The papacy itself became the most powerful banker in Christendom, and its agents, the "Lombards" and "Cahorsians," circled Europe with their nets.

In 1134 no wine could be sold by Cistercians to outsiders.

⁶ d'Etienne de Bourgon *Anecdotes Historiques*, etc., p. 365 as quoted in Coulton, *G. G. Life in the Middle Ages* (The University Press, Cambridge, 1928) Vol. I, pp. 86, 87.

but before the century closed wine was seeking a market everywhere. Prior to 1157 the Cistercians could not go more than a day's journey from the monastery to buy or to sell commodities; thereafter the journey was made four days; and in time all restrictions were removed. In the thirteenth century, consequently, the order sold its goods in Lubeck and Danish ports and had several thriving colonies in Russia.

The Church aided commerce by long allowing the use of the church-yard as a market place. To it on Saturday would come peasants with barley, beans, and other products, which became more varied as time passed. Even before the institution of the Peace of God the Church sought to restrain brigandage by threats of excommunication. Near the close of the twelfth century a young priest believed that a divine voice had directed him to build a bridge across the Rhone at Avignon, an important point on the way to Rome. His enthusiasm led to the formation of the Order of Bridge Brothers, which, in a short time appeared in various parts of Europe and greatly stimulated bridge construction, for Churchmen and pious people everywhere likewise improved the roads.

When the Moors invaded southern Europe, captured Sicily, and raided the Mediterranean coasts, the Church forbade all commercial relations with them. In a more important way, nevertheless, the Church restrained trade. The archbishops of Mainz and Cologne obtained a large share of the Rhine tolls, the river being popularly described as "the priest's lane." In a short period of time, in the thirteenth century, toll stations increased from nineteen to sixty-two. Rates were raised continually, sometimes to as high as sixty per cent, thus restricting commerce. Yet the opposition to commerce could inflict little harm, for trade at first was devoted largely to supplying articles of luxury to the clergy and nobles; the prohibitions of the Moorish trade were ineffectual; and church officials were not always in a position to collect tolls and to enforce decrees relative to prices and interest.

The Crusades.—The Church manifested its power also in the Crusades. Western Europe in nine or more expeditions between 1096 and 1272 hurled a million men against eastern pagans. Among the causes of that enthusiastic movement

were: the hope of gain through the seizure of new principalities in Asia, over-population, especially in France, military ardor, the spirit of adventure, commercial gain, desire to escape punishment for crime, the promise of forgiveness for past sins, and the abuse of the pilgrims by the Turks. Pope Urban II called a council at Clermont in 1095. Peter the Hermit, who long had preached vengeance, and Urban, the silver-tongued orator, addressed the multitude. Especially did the eloquent pope play upon the fears and the hopes of that gathering, now moving to tears, now lifting to ecstasy, and finally spurring to action: "If you must have blood, bathe your hands in the blood of infidels . . . soldiers of hell, become soldiers of the living God." Rising as one man in response to that challenge, the assembly shouted: "It is the will of God! It is the will of God!" and at once planned to take the cross the next spring.⁷

Meanwhile under Peter the Hermit and Walter the Penniless multitudes of impatient, ignorant, credulous, and unarmed or poorly armed peasants started for the Holy Land only to leave their bones for the most part in the Danube Valley or in Asia Minor. In the spring of 1096, however, nearly three hundred thousand well-equipped Crusaders met at Constantinople and eventually gained the Holy Land and stormed Jerusalem, July, 1099, amid scenes of butchery and fanaticism which the non-Christian world has seldom equaled. The Second Crusade in 1147, caused by the fall of Edessa, was a failure. About forty years later, the capture of Jerusalem by Saladin provoked a romantic but unsuccessful crusade in which Frederick Barbarossa of Germany, Philip II of France, and Richard I of England participated. The Fourth Crusade, 1195-1198, was a failure and the Fifth Crusade, 1201-1204, was prostituted by the Venetians to the capture of Constantinople and the seizure of commercial privileges. Equally unsuccessful was the march in 1212 of about fifty thousand guileless, hapless children who believed that former failures had been due to immorality or sin. The Sixth Crusade, 1217-1229, temporarily recovered Jerusalem by treaty, as did the Seventh Crusade in 1240 for a period of four years. Louis IX of

⁷ *The Historians' History of the World*, Vol. VIII, p. 333.

France failed in the Eighth Crusade, 1248-1254, and in the Ninth Crusade, 1270-1272, died at Tunis. Still other crusades were planned, but they were never executed. In 1291, moreover, the last possessions of the Christians in the Holy Land were abandoned and in time the military orders which had come into being during the Crusades were disbanded.

Some Moral and Political Results of the Crusades.—More important by far than the details and the excesses of the Crusades were the results flowing from the frenzied invasions of Asia and Africa by the uncouth nobles and peasants of Europe, many of whom hitherto had never been out of sight of the place where they were born and most of whom could not imagine anything worth-while being found in a strange land.

Difficult indeed is the moral justification of the Crusades. Easy, on the other hand, is the condemnation of the whole movement from the moral standpoint. Running down religion's fair face and flooding the streets of the Holy City was blood. Demoniacal repulsiveness and the horrible excesses of fanaticism supplanted the gentle virtues of alms-giving, fasting, and prayer. The license and sensuality of camp life conquered in too many cases the virtues of domestic life. Pride overcame humility. Bigotry and intolerance ruled in intensified form for centuries. When the Church hurled anathemas, excommunications, and interdicts at infidels, the hurling of the same weapons at heretics was an easy step. Crusades with idolators and erring Christians developed into virtues. Southern France overflowed with heretical blood and the Teutonic Knights, sword in hand, offered the Prussians and the Lithuanians death or Christianity. Especially did the persecution of the Jews develop as a result of the Crusades, many found at Jerusalem on the First Crusade being shut up in their synagogue and burned. And individuals, repentant sinners, who could not or would not take the cross, could buy pardon by contributing to the expenses of any authorized crusade. Absolutions from penance thus became articles of traffic, developing more and more until they became factors in the Protestant Reformation.

The Crusades undermined feudalism by stimulating a mon-

ey economy and especially by sweeping away tens of thousands of feudal lords. Kings, consequently, consolidated their territories and eliminated dangerous rivals. Towns began to develop, especially in Italy. The capture of Constantinople by the Venetians and the French was a result of the Crusades. Soon the Genoese helped the Greeks to recover their capital and became a leading power temporarily in the Mediterranean by subduing Pisa.

Some Social Results of the Crusades.—The social effects of the Crusades proved to be more significant than the political effects had been. Although too often the former bad habits, like whiskers, tended to return, provincialism, nevertheless, diminished and new fashions such as bathing and shaving the beard appeared. The social and intellectual horizons, moreover, were widened, a renaissance being experienced. Literary knowledge, medical knowledge, science, art, and architecture improved. To show the extent of that improvement some references to past conditions are necessary.

Under Alfred and Charlemagne an occasional ray of light had pierced the general gloom with its feeble gleam. Yet those rulers decry bad conditions. For instance, Alfred wrote a letter which lamented the decay of learning and urged that all well-to-do boys be taught to read English and then Latin. His first paragraph reads:

Alfred king, wisheth greeting to Wulf-fig bishop, his beloved and friendlike, and thee to know I wish, that to me it cometh very often in my mind, what manner of wise men, long ago, were throughout the English nation, both of the spiritual degree, and of the temporal; and how happy the times then were, among all the English; and how the kings, which then the peoples, God and his written will obeyed; how well they behaved themselves both in war and peace; and in their home government, how their nobleness was spread abroad; and how they prospered in knowledge, and in wisdom. Also, the divine orders, how earnest they were as well about preaching as about learning, and about all the services they should do to God; and how men from abroad, wisdom and doctrine here in this land sought; and how we the same now must get abroad, if we would have them.⁸

In reality the only schools from 500 to 1100 were those supported by monasteries and cathedrals and specifically designed to fit the clergy for their duties. In them language,

rhetoric, and logic, and arithmetic, music, geometry, and astronomy were the main subjects taught. The big factor in the development of education was the Crusades. That movement stimulated learning and gave birth to the universities, one of the most famous being the University of Paris, which was popularized by Abelard about 1115. The University of Salerno, about 1100, became famous for medicine, as did Bologna, another Italian school, for law. The University of Naples, 1224, was the first of the state universities; it gave instruction in all branches. Cambridge and Oxford, England, were founded in the second half of the thirteenth century and schools developed elsewhere. By 1400, in fact, about fifty universities existed in western Europe.

Before the Crusades virtually all west European writing was in Latin. About that time, however, story-tellers and poets began to use the ordinary language. Spanish ballads sang of the exploits of Cid against the Moors, the *trouveurs* of northern France exalted the adventures of Charlemagne, Roland, and King Arthur, southern French *troubadours* and German *mennesingers* sang of love, and Scandinavian poets recounted military exploits as the Germans had done earlier with their *Nibelungen Lied*, and even in England the *Anglo-Saxon Chronicle*, Chaucer's *Canterbury Tales* and Wyclif's Bible foreshadowed a national literature.

The Renaissance, resulting in part at least from the Crusades, was a reaction against authority and tradition, the subordination of the individual, and the disregard of the present life. It began in Italy about 1350 and spread to different countries at varying dates. Dante, Petrarch, and Boccaccio, all living in the fourteenth century, were leaders. Dante, 1265-1321, really belonged to the Middle Ages in thought, but in self-reliance he stood for a new period. Petrarch attacked scholasticism and false science and began a zealous search for classical writings. Although Boccaccio's fame rests chiefly upon the *Decameron*, he was the founder of Italian prose as Dante had been of poetry. Erasmus, a Hollander, and John Colet and Sir Thomas Moore, as the Oxford Reformers, likewise influenced all of Europe.

. Painting, chiefly crude Madonnas and Saints, like litera-

ture, until the Renaissance, was poor. The Crusades, however, developed a taste for painting, sculpture, and architecture, for artists liked to paint or to sculpture the scenes of war, especially of conquest. So many a palm, many a crown, and many a winged head appeared to celebrate the triumphs watered with tears and with blood. The Van Eyck brothers of Holland, Leonardo de Vinci, Raphael, Titian, and Michael Angelo were only a few of the great painters of the Renaissance period. In other countries some of the great names such as Rubens, Van Dyck, Rembrandt, Velasquez, Murillo, Durer, and Holbein belong in the sixteenth and seventeenth centuries.

Architecture was also poor until the Crusades. It was chiefly Romanesque characterized by the rounded arch until the twelfth century. Sacred edifices during the Crusades rose all over Europe in prodigious numbers, for nobles, even people with little piety, aspired to be the "founder of a church." Wreckers of temples in one place, they yet aspired to build them in other places. Barbaric possibly in ornamentation the architects have never been equaled in stonecutting, in the knowledge of arching, and in the majesty of their completed edifices. Exquisite arches replaced the ugly openings of the past. Tall cathedrals with higher and more artistic ceilings, buildings of Gothic delicacy, supplanted the low buildings of former centuries. Stones in a thousand different and often fanciful forms and painted glass, scintillating in the rays of the sun, added to the beauty of the enormous masses seemingly poised lightly on graceful columns. At this time were built such marvellous edifices as the Leaning Tower of Pisa, the Church of St. Mark at Venice, the Tower of Strasburg, the Foundations of Amiens, La Sainte Chapelle of Paris, and numerous other famous cathedrals and towers.

Economic Results of the Crusades.—Even before the Crusades certain eastern agricultural products had been introduced into Sicily and southern Italy. During the Crusades those valuable eastern products were carried into the southern part of Western Europe and even into the northern part of Western Europe. Such important agricultural crops as Indian wheat, rice, mulberry trees, sugar cane, apricots, lemons,

pistachios, plums, watermelons, saffron, sesame, and shallots thus soon found their way into various western countries.

The industrial effects of the Crusades are striking. The fine cloths of Damascus, the canopies of Bagdad, the muslins of Mosul, the glassware and satins of Tyre, the tapestries of Syria and Persia, the leathers of northern Africa, and the enamels, metal ware and potteries of various Oriental countries gave patterns to Europeans. When the First Crusade began, western Europe had no silk manufactories. Only in Greece, where the people had learned the art from the Persians, had silk manufactures obtained an European foothold. As a result of the Crusades, however, the industry was soon started in Sicily. Emigrating artisans taught the trade to the Italians. Members of the Humilies, a religious organization, were the chief manufacturers, inventing, so it is said, cloth of silver and of gold. From the Saracens the Crusaders purchased textiles of camel's hair, an industry likewise transported to Sicily and other European regions. Probably the famous glass manufacturers of Tyre excited the rivalry of Venice, which in the fifteenth century in particular, drew great profit from glassware. Perhaps, also, the Crusaders gained a knowledge of paper from the Greeks and spread that knowledge throughout southern and western Europe. The Arabs were especially skilled in metal working, chasing and encrusting. By inventing "damascening" they gave steel the brilliance of silver and gold. Crusaders carried away five hundred silver vessels and probably improved their own arts of enamelling metals and painting solid colors by studying the Arabian works of art. From the Orient likewise they brought back such precious jewels as rubies, sapphires, emeralds, hyacinths, and diamonds. Soon they discovered how to set those jewels in silver and in gold in such a way as to give them an ever-living charm. Apparently, too, mills run by wind were invented in Asia Minor which had little running water, and were introduced into Europe by Crusaders in the twelfth century, a probability partially confirmed by the use of windmill parts on old armorial bearings.

The Crusades, moreover, stimulated accounting systems, the adoption of sound money, and the perfection of the arts of

navigation, the compass, for example, being introduced. Northern Europeans, furthermore, compared their high-decked massive boats with the low quick-moving boats of the Mediterranean and improvements, such as more than one mast and better-built boats, naturally occurred. National fleets, as in France, date from the Crusades, and the title of "admiral," borrowed from the Greeks or the Arabs, came into permanence.

At the time of the Crusades the trade with the East was carried on through the Greeks and the Arabs, but the Italian cities,—Venice, Genoa, Pisa, and even Florence,—soon won that trade. The commercial activity stimulated by the Crusades probably encouraged the formation of the Hanseatic League which came into being near the beginning of the thirteenth century and exchanged northern products for south European wares and Asiatic luxuries. Sugar, jewels, drugs, silks, perfumes, and spices were only a small number. Especially were the spices,—cinnamon, ginger and cloves,—and musk highly esteemed. Poets and writers sang their praises on almost every page. Heaven, to many, became a superb palace, surrounded by a sweet-smelling forest filled with spice-bearing trees, a palace whose tables groaned under famous dishes and fine wines bountifully spiced.

SELECTED REFERENCES

Ashley, W. J. *In Introduction to English Economic History and Theory* (London, Longmans, Green and Company, 1920) Vol. I, Book II, Chapter VI.

Diehl, Charles, in *The Cambridge Medieval History* (Cambridge, The University Press, 1923) Vol. IV, Chapter XXIV.

Gardner, Helen. *Art Through the Ages* (New York, Harcourt, Brace and Company, 1926) Chapters XV-XVIII.

James, M. R., in *The Cambridge Medieval History* (Cambridge, The University Press, 1922) Vol. III, Chapters XIX and XX.

Monroe, A. E. *Early Economic Thought. Selections from Economic Literature Prior to Adam Smith* (Cambridge, Harvard University Press, 1924) Number III.

Tawney, R. H. *Religion and the Rise of Capitalism* (New York, Harcourt, Brace and Company, 1926) Chapter I.

Thompson, J. W. *An Economic and Social History of the Middle Ages* (New York, The Century Company, 1928) Chapters II, V, and XXV.

Williams, H. S. Editor. *The Historians' History of the World* (London, The Encyclopaedia Britannica Company, Ltd., 1926) Vol. VIII, Part XIII, Chapters I and VII.

CHAPTER IX.

AGRICULTURAL AND INDUSTRIAL LABOR

Slavery.—The fall of Rome, hastened by slavery, did not stop that institution. The Saxons carried into England their forms of slavery and perhaps half the population of that country consisted of slaves, the price of a man being only four times that of an ox. Despite heavy penalties Saxons sold their kindred on the Continent. Even after the Norman Conquest so many slaves were sent from England to Ireland that in 1102, to lessen the chances of an English invasion, an Irish National Synod decreed the emancipation of all English slaves and the non-importation of other slaves from England. The long wars between Germanic and Slavic tribes gave new vigor to the slave trade and fastened upon every class of bondmen in western Europe the name of "Slave." Down the Dnieper toward Constantinople also journeyed the Russian merchants with their slaves, some natives apparently finding bondage the only refuge from want. In Sicily Asiatic and African natives were abundant, many being supplied because of poverty which led the Arab father, as it did the Christian father, to pawn his own children. The religious wars—Christians and Moors—lasting for seven centuries, moreover, kept up the institution of slavery, for bondage was the reciprocal fate of the captives. When Granada was finally captured by the Spaniards, thousands of Moors went to the coast of northern Africa and there each commercial city became an asylum for pirates and every Christian naturally became legitimate booty.

The traffic in Christian slaves was, nevertheless, falling into disrepute in western Europe. Pope Alexander III in the twelfth century urged that because Nature had made no slaves

all men had "an equal right to liberty." At Bristol, Hamburg, Lyons, and Rome the clergy, moreover, had succeeded in breaking up the trade in Christian slaves. Louis X of France, in 1315, on the advice of the jurists, published an ordinance declaring that by the law of nature every man ought to be born free, that serfs were held in bondage by the suspension of their rights and should be restored to freedom "so far as the royal power extended," and urging that every master of slaves follow the royal example in bringing about a restoration of freedom. A little later John Wyclif argued that slavery was unchristian. The opinion of the civilized world at the time of the discovery of America, in fact, outlawed the traffic in Christian slaves, demanded the emancipation of the serfs, but considered the infidel as outside "the pale of humanity," and, therefore, subject to slavery.

Another type of slavery, however, was appearing toward the close of the Middle Ages. About the year 990 Moorish merchants from the north African coast reached the west coast and began the exchange of luxuries, European and Saracen, for gold and for slaves. In 1441 Portuguese ships sailing as far south as Cape Blanco brought back not Negroes but Moors. Their captor, Antony Gonzalez, was ordered to restore them to their home. When he complied, they gave him gold and also "black Moors" with curly hair as a ransom.

Transition from Slavery to Serfdom.—One of the factors favoring the decline of slavery and the rise of serfdom, a slightly better condition, was the early influence of the Church. The Church at first protested against the increase of slaves in the homes of the rich for vanity's sake, their use in the gladiatorial combats, and their consignment to the theatrical profession. It encouraged, moreover, the freeing of individual slaves not held by the Church, and the ransom of captives. The ameliorative legislation of Theodosius and of Justinian shows, perhaps at its best, the influence of the Church. Justinian punished with death the rape of a female slave as well as the rape of a freedwoman or a free maiden, stopped the fighting of men and of beasts in the arena, made the freeing of slaves easier than it had been in the past, and gave complete and immediate rights of citizenship to the freed slaves.

A second important factor in improving the condition of the slaves in the early period was the reduction in their supply contingent upon the completion of the Roman conquests. Each slave became an object of greater value to the owner, and rising prices thus insured better treatment. Each family also tended to preserve its hereditary slaves, thereby checking somewhat internal sales.

The rehabilitation of free labor, a movement which had been slightly noticeable from the second century, was a third factor favoring the transition to serfdom. Although the workshops of the wealthy employed slave labor in large part, even there free artisans as individuals or associations often competed with the slaves. On the land, too, free persons worked as hired laborers or as tenants, and the rise of the free laborer helped to lift the position of the slave.

The hereditary fixity of occupation and profession was a fourth condition promoting the growth of serfdom. Classes in the administrative service were compelled to remain in that service, not even being allowed to marry their daughters outside of their own *collegia*. That tendency operated in holding men on the land.

A fifth factor in the transition to serfdom was the merging of the rural slaves in the *coloni*. The *colonus* was, at first, merely a freeman who cultivated land on lease on condition that he paid the owner a fixed sum or amount of products each year. Constantine in 332 permanently bound the *colonus* to the land by forbidding him to marry outside of the estate. Toward the close of the fifth century law provided that if a *colonus* voluntarily entered an estate and remained on it for thirty years he became irrevocably attached to it. Because of the similarity of their condition the *colonus* and the slave naturally tended to merge into a single class. Praedial slaves were generally forced to work under the supervision of overseers on the part of the property cultivated by the owner, but at times they were given small farms on conditions similar to those of the *coloni*. Even before the law protected them they were continued in their holdings. In 377 the sale of the praedial slaves was prohibited unless the land also was sold. In-

ter-marriage between the slaves and the coloni was frequent; hence distinctions tended to disappear.

The Germanic tribes likewise aided somewhat in the development of serfdom, for the Germans held slaves, who, if Tacitus is trustworthy, had separate households and paid tribute to the masters in the form of grain, cattle, and clothes. After the conquest of the Roman provinces the Germanic peasantry naturally combined with the Roman coloni to form the class of serfs.

The Black Death.—Because of its economic effects on labor the most famous of all calamities, the Black Death, so named because boils in many cases turning black broke out over the body, will be sketched. Droughts, floods, earthquakes, and the poisonous condition of the atmosphere were all considered causes of this fell disease.

The plague began in China about 1333 and within fifteen years had reached Europe, being carried westward by caravans. It attacked southern Europe first, with some exceptions tending to follow the coast line and apparently not reaching Sweden until November, 1349, nearly two years after it had broken out in Avignon, France. In Russia it did not make an appearance until 1351, three years after it had reached Constantinople.

Because of crowded, insanitary conditions and the lack of medical skill the death rate was exceptionally high. In the East perhaps twenty-four million people, not including the Chinese, fell victims. Europe lost about twenty-five million. Whole families needed but one burial, the stench of putrefying corpses was everywhere, adults deserted families in the mad rush for safety. Perfumes, antidotes, luxurious living, and isolation alike failed to save from the plague, which, we might summarize, of unknown origin swept off unknown millions.

Soldiers returning from the Hundred Years' War probably carried the plague into England. In August, 1348, it reached Bristol and Southampton and from those ports it spread throughout the country, affecting alike the city dwellers "with their filthy, undrained streets" and the laborers "in the open fields amid the fresh air and sunshine." Henry of Knighton's *Chronicle* reads: "The fell mortality came upon them, and the

sudden and awful cruelty of death winnowed them." Whole districts were, in fact, depopulated and perhaps one-third of the entire population of England perished.

The economic effects there will apply, with some variations, in other countries. One of the immediate effects was, of course, the scarcity of labor, for because the laborers were poor and lived under most insanitary conditions they succumbed to disease and to famine. Landowners, fearful that their lands would not be properly cultivated, bid against each other for labor, thus advancing wages fifty or sixty per cent in a little while, a procedure that could not be stopped by legislation. Landowners, if possible, drove back into villeinage free laborers and tenants who already had commuted their services for money payment, one of the factors tending to bring on the Peasants' Revolt. Even though the wages of labor rose, there was no corresponding rise in the price of food unless, as in the case of fish, labor was the chief factor in production.¹

Although owners of large estates received temporary fees through heriots and reliefs and in some cases increased their holdings through the death of relatives, they suffered, for they were compelled to pay more for their laborers and the implements used. Professor Thorold Rogers notes a certain estate on which the cost of harvests increased about threefold. Inasmuch, moreover, as there were fewer renters and inasmuch as tenants at the old rent for farms and the new prices for labor and implements could not work the farms profitably rents tended to fall.

The Black Death hastened also the operation of the Statute of *Quia Emptores* which had been passed a half century earlier. That law was intended to check "subinfeudation," or the practice of a tenant of some great lord taking a small tenant on condition that he render feudal services to him similar to those the first tenant gave to his lord. The law provided that if any land was so rented the subtenant should hold it direct from the owner, not from the other tenant. The first tenant had been compelled to retain enough land to fulfil the specified

¹ A big increase in the price of such things as wheels, canvas, tile, lead, iron work, and all agricultural materials occurred.

feudal obligations to his lord, but now he could dispose of both land and services. Small gentry and freeholders, therefore, increased, a tendency strengthened by the plague.

Peasant Revolts in the Low Countries.—Of the numerous revolts in the Netherlands that of West Frisia, or the part of Holland west of the Zuider Zee, may be taken as typical. The inhabitants of West Frisia,—pirates, merchants, fishermen, and peasants,—were noted for their spirit of liberty and their unwillingness to submit to neighboring princes. Although they long had held special privileges, they rebelled either because they feared subjection to the feudalizing process or because they desired even greater privileges than those which they enjoyed. The long contest, 1272-1278, with the Count of Holland, ended in the defeat of the peasants, and their incorporation into the countship of Holland. That meant the payment of the required taxes, submission to forced services, and compulsory aid in the building of castles and roads.

Down the coast toward France another revolt occurred about a half century later. It was in West Flanders and was more social than the one in West Frisia had been. Free peasants, not serfs, cultivated the flat and infertile soil. They desired better conditions than those which they had enjoyed. Their leader, a man by the name of Clais Zanneiken, had a small farm. The revolt, fairly well managed, expanded until it included other elements, enjoying even the support of Bruges. Ghent aided the nobles, who also received the help of the Count of Flanders and to some extent of the King of France, the feudal lord of the count. The pope, by placing the country under an interdict, injured to some extent the peasants. The revolt lasted from 1323 to 1328, the peasants being defeated eventually in the battle of Cassel with heavy losses. The survivors of that battle later obtained pardon by the payment of heavy ransoms and the peasants in general paid the perpetual rents imposed for three centuries.

Jacqueri of 1358.—Peasant revolts, to be sure, as in other countries, are old in France. In 997 the villeins of Normandy proclaimed the equality of all men, bound themselves by a strong oath, and formed a general assembly with deputies from all districts. Their plot, however, was revealed and their lead-

ers were surprised and cruelly tortured. In 1024 another fruitless revolt, but one also costly to the nobles, occurred among the Breton peasants. Such revolts were, of course, caused by oppression, an oppression of which Beaumanoir wrote: "The lord can take from them all that they have and keep them in prison as long as he likes, whether justly or unjustly, and he is expected to render account of all this to God alone."²

The most famous of the oppressed peasants' risings, though the revolt lasted for only five weeks, was that of the Jacqueri in 1358. Its immediate cause was brigandage. The Hundred Years' War was in progress, and the English had just won the notable battle of Poitiers. The French government had broken down, and its feudal lords, unable to preserve order, often preyed upon the defenseless. Up and down the land marched English and French soldiers and robbers, murdering and plundering the peasants. Men, young and old, were killed for resistance or perhaps for sport. Virgins, mothers with babes at their breasts, and even nuns were violated. If the peasants escaped to the forests, they returned to find their homes burned, their barns emptied, their grain trampled, their vines torn up, and their stock carried off.

Those atrocities occurred in a part of France which once had been prosperous, a region dotted with towns, a region including the capital, and a region in which the peasantry had been growing in influence and in prosperity. Having once tasted better things, the peasants were in no mood to endure cruel treatment. Aided by town merchants in Paris and Senlis, a few nobles, such tradesmen as butchers and cheesemongers, and priests they struck back.

Their leader was William Cale or William Charles, a handsome and eloquent peasant with some education and a little military experience. Had his following been disciplined and well equipped he might have gained a large measure of success. Cale's chief ally was Etienne Marcel, a rich and ambitious Paris merchant, who longed for better government and, like Cale, was an enemy of the feudal system. Both

² See Duruy, Victor. *A History of France* (Thomas Y. Crowell Company, New York, 1920) p. 121.

Marcel and Cale were moderate, but the latter especially was unable to control his men. A band of a hundred, meeting near Beauvais, if Froissart is trustworthy, broke into a knight's house, killed him, his wife, and children, and burned the house. They then attacked a second house, tied the knight to a stake, violated his wife and daughter in his presence, then killed the woman and all her children, and lastly the knight himself. Another group killed a knight, roasted him over a fire in the presence of his wife and children, about a dozen peasants ravished the woman, the group then forced her to eat some of her husband's flesh, and finally the peasants killed her and all of her children.

Such atrocities, of course, only nerved the gentry to renewed efforts. And they inflicted two disastrous defeats on the peasants, one at Meaux on the River Marne where the peasants were besieging the castle which contained many fugitives, royal and noble ladies. A band of knights arriving by chance saved the besieged party, for a small group attacked the peasants and their tradesmen supporters, scattering them like chaff before the wind. The knights then destroyed the town of Meaux, which had helped the peasants, and murdered the peasants who were found within its limits. The other peasant defeat was north of Paris where Cale had led a band of about two thousand peasants to meet the King of Navarre. The king's forces were only half those of Cale whose men had unbounded faith in their leader, but the king won by trickery, inviting Cale to a conference and then seizing him as a prisoner. The peasants, without the services of their leader, lost heart and submitted to a massacre. Like wild beasts they were hunted down and killed. Some three hundred who had taken shelter in a monastery were burned.

The English Peasant Revolt of 1381.—The Black Death had impressed upon many people the dignity and the power of labor. The author of *Piers the Plowman*, for example, boldly denounced the upper classes, bidding the agricultural classes to "chastise well Hob the Robber." Fanning the spirit of independence, too, were the strong assertion of rights by the Good Parliament of 1376 and the sermons of Wyclif and the

wandering friars. For a score of years, for instance, John Ball and other priests had preached:

Good people, things will never be well in England as long as there be villeins and gentlemen. By what right are they whom we call lords greater than we? On what grounds have they deserved it? Why do they hold us in serfage? They have leisure and fine houses: we have pain and labour, and the wind and rain in the fields. And yet it is of us and our toil that these men hold their estate.³

After the Black Death the lords insisted more strenuously on labor dues, even attempting to force back into villeinage the peasants who had gained free tenancies. Apparently, too, the lords in the manor courts made the fines excessive. Wyclif declared: "Lords many times do wrongs to poor men by unreasonable amercements." In *Piers the Plowman* one line reads: "When ye amercyn any man let mercy be taxer."

In the middle of 1349, with the plague still in northern England, the king with the advice of the council, prohibited the laborers from asking more than they had received in the year prior to the outbreak of the Black Death or five or six years before that time. In 1351 the provisions of the ordinance received the sanction of Parliament. Men, therefore, were required to work when work was offered them, definite rates of wages were established, and twice a year the laborers were compelled to swear that they would obey the law. Refusal to so swear or disobedience drew a penalty of three days in the stocks and imprisonment until the individual agreed to serve as desired. Within the next century this law, with variations, was reenacted thirteen times, the legislation of 1361 being especially severe. By it manor lords were given the right to imprison for fifteen days those unwilling to labor and then to send them to jail to await the arrival of the justices. The sheriff, if he desired, might have the runaway laborer branded on the forehead with the letter F for falsity. Probably, however, branding was a mere threat, for application was suspended several months, was inflicted then only with the consent of the judges, and the iron was kept by the sheriff.

While the Hundred Years' War was being waged successfully by the English, not the English, but the French peasants

³ See Gibbins, H. de B. *Industry in England*, p. 163.

were in revolt. But after the Peace of Bretigny many possessions were lost by the English and there was discontent over the conduct of the war. The dissipated king who squandered in large part his levy of tenths and fifteenths, so frequently renewed on wool and other products, and his duties and imposts, on a corrupt court and mistresses, one of whom, Alice Perrers, robbed him of his jewels on his death bed, increased the discontent.

For the precipitating cause of the revolt, notwithstanding, we must turn to the poll tax which was proposed by Edward III shortly before his death in June, 1377. The first tax was an assessment of four pence a head on laymen. Convocation levied a similar tax on the clergy. In April, 1379, Parliament assessed on all persons over sixteen a graduated poll tax ranging from four pence on common laborers up to four pounds for earls. Because this tax produced only a fifth of the hundred thousand pounds needed, Parliament, in November, 1380, levied another poll tax. It was assessed in a way intended to produce as many shillings as there were people over fifteen, but no one was to pay less than four pence for himself and wife and no one was to pay more than one pound. The king appointed inspectors to examine conditions in certain districts and to compel evaders to pay the tax. To the ignorant peasants this action seemed to be a new tax.

In the second week of June rioting began almost simultaneously in different parts of England. A father killed a collector who had insulted his daughter. Soon in north, south, east, and west the country rose in revolt. In Suffolk several high officials were killed and manor documents and property either were destroyed or carried off; in Norfolk murders were committed and property was destroyed and the prisons were emptied. London, on June 13, was entered by the peasants who seized the Tower and killed the king's treasurer and the archbishop of Canterbury. The next day Richard met the peasants of Essex and on June 15 the men of Kent. On the latter occasion Wat the Tyler, the leader of the peasants, lost his life at the hands of the Lord Mayor of London, but Richard's bravery and peasant indecision prevented the annihilation of the royal party. The men of Essex demanded: "We

will that you free us forever and our lands, and that we never be named or held as villeins." "I grant it," was the hypocritical reply of the king. On June 30, however, the king ordered all tenants, villein and free, to give the accustomed services, and on July 2 he annulled the charters of freedom, an action sustained by Parliament on November 5. Special commissioners then ferreted out the leaders and about 1500 were executed. Richard himself with an army of forty thousand men marched through Essex and Kent crying out to the men who claimed his promise: "Villeins you were, and villeins you are. In bondage you shall abide, and that not your old bondage, but a worse."

Yet was the revolt a failure? On July 15 at St. Albans two noted leaders, John Ball and Grindcobbe, were hanged. The latter spoke noble words of truth: "If I die, I shall die for the cause of the freedom *we have won*, counting myself happy to end my life by such a martyrdom." Was the martyr right? True, the landowners, who even tried to exclude children of bondmen and bondwomen from school and thus to keep them out of the Church and who wanted to reclaim villeins from the chartered towns, refused to compromise. The king, however, refused both requests. Gradually villeinage declined, for the revolt had given it a mortal wound. Better treatment, therefore, was accorded to the peasants and the English laborers of the fifteenth century enjoyed a considerable degree of prosperity.

The Rise of Free Labor.—Only gradually did the free labor supply build up to respectable proportions. Prior to the rise of the towns in the eleventh and twelfth centuries labor was largely agricultural. Yet here and there in Europe craftsmen did appear, unfree workers being mentioned earlier than free workers. The *Lex Salica* mentions only the *faber*, who was a smith, or a woodworker, or some other artisan. Free craftsmen are mentioned in the sixth century for southern Europe and in the eighth for northern Europe. They appear more frequently from the days of the Carolingians. One of these workers, Fulcon, a painter, toward the close of the eleventh century went to the monastery of Angers in France, and agreed to make pictures and windows. His hire was treat-

ment as a brother, rank of freeman of the abbey and life tenure of one and a quarter acres of vineyard and a house. The land was to return to the abbey unless the painter left a son capable of performing the same work.

The development of the towns and the craft guilds increased the number of free laborers and accentuated specialization. The *Dictionary of Jean Garlande* for the latter part of the eleventh century describes thirty-seven occupations for Paris, the *Book of Crafts* covering 1258-1270, one hundred, but the tax rolls of 1292, 225 industrial and commercial occupations. Most of the laborers found employment in the guilds. The journeymen in all countries where the guild system prevailed were in fact the free laborers. When the apprentice became a journeyman, he was free to work for anyone provided he did not attempt to follow a craft other than his own. If he left his own town, he was likely to suffer various disabilities unless the craft guild of the new town received him well. In Germany, however, migratory laborers seemed to be encouraged. The term of hiring varied, but the English Statute of Laborers provided for a year's contract. That period long applied in the case of the agricultural laborer, the coal miner, the salter, and the domestic servant. The journeyman, however, was employed normally for one day as the name implies. In both France and England journeymen assembled at a given place at a specified hour day after day, the time being fixed so as not materially to curtail working hours. At that place a master employed them for a day. If the work required continuity of effort, as in designing, weaving, and cabinet-making, he could employ them for a longer period than a day, at times for a week or even a year.

Because of the illiberality of some masters combinations of journeymen were frequent. As early as 1306 in England the cordwainers had trouble and the journeymen were forbidden to make regulations for themselves. In 1387 journeymen made a strong effort to raise wages, a "black leg" who refused to make common cause with them being mistreated. In 1386 a dispute was in progress between the saddlers of London and their journeymen. Once a year, according to the masters, the journeymen without the consent of their employers arrayed

themselves in a new and similar suit and held meetings either outside or inside of the city. The journeymen claimed that "time out of mind" they had so arrayed themselves and gone to hear mass in a certain church. The masters denied that statement, declaring that the practice had been followed for only thirteen years and that the real object was to raise wages. They insisted, too, that prior to the organization journeymen worked for board and forty shillings or five marks yearly, whereas they now demanded as much as ten or twelve marks or even ten pounds *per annum*. The masters also declared that another factor injuring their business was the interference with the work of the individual journeymen by an officer, designated as a beadle, who would summon one of the journeymen to watch beside a dead member, and whose summons the journeyman would obey rather than pay a fine. After a more or less perfunctory hearing the mayor and aldermen decided that thereafter the journeymen "should have no fraternity meetings, or covins, or other unlawful things under a penalty, etc."

In Germany in the fifteenth century, because of the arbitrary policy of the masters who favored their own children, journeymen guilds were more common than they were in most countries. They carried on long struggles with their masters or the master guilds over hours of work and wages, thus foreshadowing the struggle between employers' associations and labor unions. In France the policy of Louis XI, 1461-1483, weakened the guild system and perhaps strengthened labor, for a competent laborer could save up enough to buy a letter of mastership, thus obtaining admission to a guild.

Yet labor organizations during the Middle Ages were effervescent. Three reasons at least partially account for their scarcity and weakness. One of these reasons was the spirit of friendliness engendered by guild association when the employer and the employee worked side by side. A second reason for the scarcity of workers' associations was the fact that because journeymen and serving men were guild brothers they had a voice in the making of ordinances at times and well-nigh universally a voice in the election of officers. A third reason for the small number of associations was the possibility of

rising to the mastership. By hard work and economical living the workers might save enough money to enter the gild and to set up a shop of their own.

When wealth was thrown into machines, a capitalistic society with its definite wage-earning class appeared. Thus, at Nurnberg a large printing establishment used twenty-four presses and one hundred employees,—typesetters, printers, correctors, binders, and the like. At Basel as well as Nurnberg we find paper mills on a capitalistic basis in the fourteenth and fifteenth centuries. As early as 1341 Bologna had large spinning mills worked by water-power. The loom, moreover, played an important part in starting a large capitalistic silk manufacture in Ulm. The introduction of the blast furnace early in the fifteenth century with the employment of coal and water-power to move stamps, hammers, and the like carried still further the development of capitalism already apparent in the use of plants and tools.

Wages and Hours of Work.—In many of the European countries the workers, without political influence, were compelled to work long hours for a mere pittance. In Flanders, the chief industrial region, they lived from hand to mouth in miserable insanitary dwellings under the domination of the wealthy classes. Those classes revealed their contempt for the workers by legislation. A law of Bruges in 1241 associated artisans with counterfeiterers and thieves. From the middle of the thirteenth century on strikes were common in the densely peopled industrial districts. Riots occurred in various Dutch towns in 1244 and 1248. Disturbances increased in the fourteenth and fifteenth centuries, manners and morals showing no improvement. Violence seemed to be shifting from rural life to town life.

Everything considered England was one of the fairest countries in the treatment of labor. To it, therefore, we shall turn our attention. During the fourteenth and fifteenth centuries the English Parliament was especially interested in the regulation of wages for agricultural laborers and for workmen in building operations. Wage control for other laborers was left largely to the gilds, to the justices, or to the mayor or bailiffs of cities and boroughs.

In 1351 the law set definite limits to the wages of "labourers in husbandry" and "workmen of houses" and required other workmen to be "sworn before the justices to do and use their crafts and offices in the manner they were wont to do." Disobedience drew fine and imprisonment, as the justices willed. Although in 1361 the punishment was made lighter by abolishing the fine, the power of the justices over wages was extended in 1389. The law at that time declared:

Forasmuch as a man cannot put the price of corn and other victuals in certain, it is accorded and assented that the Justices of Peace in every county, in two of their Sessions to be holden betwixt the Feast of Easter and St. Michael, shall make proclamation by their discretion according to the Dearth of victuals, how much every mason, carpenter, tiler, and other craftsmen, workmen, and other labourers by the day, as well in harvest as in other times of the year, after their degree, shall take by the day with meat and drink, or without meat and drink, between the two Sessions before said, notwithstanding the statutes thereof heretofore made, and that every man obey such proclamations from time to time as a thing done by statute. And in the right of victuallers it is accorded, that they shall have reasonable gains, according to the discretion and limitation of the said Justices and no more.⁴

The powers exercised by the justices were extended soon to mayors and bailiffs. Those powers, though they had become practically extinct by the middle of the eighteenth century, survived until the nineteenth century. The wages fixed were maximum, not minimum, and worked for the benefit of the employing class, but some scholars believe that if they were not minimum they tended to become so.

Legislation concerning hours of labor was less marked than was the legislation concerning wages. In 1402, nevertheless, a law prohibited laborers from taking pay on holidays when they did not labor or for a whole day's work when they labored for only a half day. A caulker in 1495, laboring not by the day, but by the tide, was to work "for as long time as he may labor above the water and beneath the water" for a maximum wage of four pence a day and meat and drink. In 1495, an elaborate law, repealed in 1496, virtually set from dawn to dusk, the customary period, as the regular working day. From the middle of March to the middle of September the day be-

⁴ See Stone, Gilbert. *A History of Labor* (The Macmillan Company, New York, 1922) p. 91.

gan at five and lasted until seven or eight with thirty minutes for breakfast and an hour and a half for dinner.

Wages and Their Purchasing Power in England.—Professor Thorold Rogers calculates the wages of a good agricultural laborer in England shortly before the plague at nearly two and a half pounds a year.⁵ After the plague the wage rose to about three and three-fourths pounds. The wages for an artisan before the plague, if he could labor three hundred days in the year, were nearly four pounds and after the plague about five and three-fourths pounds.

From 1388 to 1495, though apparently plowmen and children under fourteen profited little, wages virtually doubled. In 1495 Henry VII's ship-building employees, counting meat and drink, received from two to five pence daily and without meat and drink from four to seven pence. These prices applied only in summer. In winter when the days were shorter wages were invariably lower than they were in summer, for house workers varying from three to five pence daily, dependent upon whether or not food was provided, in contrast to summer wages of four to six pence.

Although wages were set not to protect the worker, but the consumer, the price of commodities was fixed carefully and, consequently, the wages had a high purchasing power. The laws of Edward III, moreover, extended the purchasing power of the wages by making provision for the limitation of clothing expenditures. Handicraft and yeoman people were not allowed to wear cloth that cost more than forty shillings and their wives and daughters were allowed to wear only the cheapest furs such as lamb, cat, coney, or fox. If, however, those same individuals possessed property worth more than five hundred pounds they were allowed to dress better than the ordinary workers could dress and if their wealth equaled a thousand pounds they could dress as well as could an esquire or gentleman in silk and in cloth of silver and their wives could wear miniver fur which was nearly as valuable as was ermine or letuse.

To us, of course, a wage of ten to fifteen cents a day looks small, but we should never forget that the purchasing power

⁵ That figure, however, included the labor of his wife and child.

of money was far more than it is now. The artisan who made ten or twelve cents a day did not suffer, for prices were low. Beef at one cent a pound, mutton at one and a half cents a pound, table beer at one cent a gallon, strong beer at two cents a gallon, grain for about twenty cents a bushel, chickens for two to four cents each, and geese and pigs for about eight cents each were common prices. Our agricultural laborer with the proceeds of one day's work, consequently, could buy a pound of beef, a gallon of beer, and a peck of grain. To those articles the artisan could easily add a good-sized chicken. If a man wanted to board out, he could obtain the best possible board for twenty-five cents a week and passable board for half that sum. What did the common people eat? Their tables groaned under veal, mutton, lamb, pork, bacon, souse, brawn, fruit, pies of fruit, and "fowls of sundry sorts."

Although frequent holidays perhaps reduced the days of work, during the harvest season extra work at good wages supplied compensation for the time lost. In his leisure time, moreover, the agricultural laborer could work on the small tract of land which generally went with his cottage. The commons, waste land, and forest, furthermore, supplied him with fuel for his pigs, geese, and cow. And the right to a little land with the cottage was safeguarded by one of Elizabeth's laws, 1589, a law which required that every cottage have four acres of land. "In those days," observed Professor H. de B. Gibbins, "if contemporary evidence goes for anything, England was once in reality 'Merrie England,' and life, even if unrefined was colored with broad, rosy English health."⁶

That such prosperity for the working classes was almost unknown on the Continent seems evident from the wonder of the foreigners who travelled in England. Indeed, such was the boast of Henry VIII's State papers: "What common folk in all this world may compare with the commons of England in riches, freedom, liberty, welfare, and all prosperity?"

SELECTED REFERENCES

Abram. Annic. *English Life and Manners in the Later Middle Ages* (London, George Routledge and Sons, Ltd., 1913) Chapters III and XIII.

⁶ See *Industry in England*, pp. 172-175.

Ashley, W J *An Introduction to English Economic History and Theory* (London, Longmans, Green and Company, 1920) Vol. I, Part II, Chapter IV.

Boussonnade, P. (Eileen Power Translation). *Life and Work in Medieval Europe* (New York, Alfred A Knopf, 1927) Book II, Chapter II and Book III, Chapters II-IV

Frank, Tenney. *Economic History of Rome* (Baltimore, Johns Hopkins Press, 1927) Chapter XXII

Gibbins, H de B *Industry in England* (New York, Charles Scribner's Sons, 1912) Chapters XI and XII.

Glas, N S B *A History of Agriculture* (New York, I. S. Crofts and Company 1925) Chapter V

Power, Eileen, in *The Cambridge Medieval History* (Cambridge, The University Press, 1932) Vol VII, Chapter XXIV

Thompson J W *An Economic and Social History of the Middle Ages* (New York, The Century Company, 1928) Chapter XXVII

CHAPTER X.

INDUSTRIAL ORGANIZATION

Housework.—The earliest form of industry, according to Professor Carl Bucher, was housework, which may be defined as "industrial production in and for the house from raw materials furnished by the household itself."¹ In Norway and Sweden, where the expression originated, it applied especially to sewing, spinning, weaving, and the making of wooden utensils. In its original form there was absolutely no exchange, each commodity going through the various stages of production in the particular house in which it was used. The house's wealth, therefore, consisted of consumption goods,—flax, yarn, cloth, clothes, corn, meal, and bread,—in the various degrees of completion. As aids to its production house work employed the distaff, the weaver's loom, the axe, and the handmill.

The industry is older than and as widespread as agriculture. In various parts of the world explorers have found primitive peoples making bows and arrows, weaving mats and vessels from reeds, bast, and roots, making crude pottery, tanning skins, crushing food grains on grinding stones, and even smelting iron and building houses. Until the close of the eighteenth century in the highlands of Scotland each man was fuller, tanner, weaver, and cobbler. In many parts of eastern Europe until about the middle of the nineteenth century scarcely any other craftsman than the smith and occasionally nomadic carpenters existed.

Today, in various parts of the world, even in mountainous sections of Europe, housework is still going on. Because this work is carried on for the laborer's own need he gives his

¹ See *Industrial Evolution* (S. M. Wickett Translation, Henry Holt and Company, New York, 1912) pp. 154, 155. Bucher's other industrial stages were: wagework, handicraft, commission work or house industry, and factory work.

highest ability to it. The use of mechanical ability, of course, develops talents. The dexterity of Swedish and Russian peasants, consequently, probably had its origin in the complicated tasks of their own homes. Some of the mechanical aptitude thus developed may be hereditary. At any rate the skill of women in baking, spinning, and weaving seems partly due to long industrial development reaching back to ancient times. The products of domestic industry, as in Germany, thus have become models for popular imitation.

When the household was limited to the small circle which we label the family, the supply of labor might have proved inadequate if slaves and serfs had not been adopted or employed. Among the Greek and Roman house slaves were industrial workers of various kinds. Charlemagne prescribed carefully what kinds of unfree workers lords should keep on each villa, every steward being required to have good workmen, "such as smiths, carpenters, workers in gold and silver, shoemakers, turners, shield-makers, fishers, fowlers, soap-boilers, brewers of mead, bakers, and net makers." The manors throughout western Europe, in general, maintained skilled handicraftsmen. Such workers generally bore a title signifying their skill or rather their special position, namely, "officials."

Housework, however, does not continue as production for direct consumption only. In central Africa, even among our own Indians, and elsewhere, women carry pots, basketware, and other products of their own labor to the markets. Even King Solomon of the long ago pictured the virtuous wife who sold the wares her own hands had produced. The ancient Greeks taught slaves not needed as laborers a special industry and compelled them to produce for the market. Peasant families of early Europe probably exchanged the surplus wares of their household industry more than they exchanged the surpluses of their fields and herds. From the beginning of the Middle Ages the peasants of various parts of Germany sold their home-made linen cloth at the markets and fairs. In the Baltic provinces during the same period the peasant women sold a coarse woolen cloth which actually served as money. In Japan, Sweden, Hungary, Rumania, and many other countries the people sold not only agricultural products but also

earthen and wooden wares, cloth, aprons, embroidered ribbons, laces, and other products of home industry. This production for the market became especially marked when the land owned by a family was broken up, or divided, and part of the population needed to specialize on some industry.

Wage-work.—In place of developing into special branches of housework and a variegated small-scale industry the evolution may be toward a special class of industrial laborers who work for a wage. The history of this wage-work is hoary with time, Babylonian temple records, Egyptian relics, and Homeric literature all attesting its antiquity. Greek and Roman artisans were often wage-workers and numerous medieval guild regulations show the continued influence of wage-work.

In this wage-work, of which some people show an ignorance comparable to that of the private who, when told, "Fire at Will," asked "Which one is Will?" two forms of relationship, —itinerancy and ownership of fixed capital,—appeared. In the first form the employer temporarily received the worker into his home, supplied him with board and lodging if he did not live in the village, and gave him a daily wage until the necessary work was completed. The laborer then moved on to another place, thus giving rise to the expressions of "itinerancy" and "itinerants." In the second form the wage-worker conducted his own place of business, the raw material being supplied to him and worked up under his direction for a piece-work wage. Naturally the itinerant labor and the home-work differed somewhat in origin. The first depended upon aptitude for a particular kind of work; the second depended upon the control of fixed means of production as an oven, mill, or forge.

According to Bucher "the essential feature of the wage-work system is that there is no business capital." There was, therefore, no chance of profit for the producer of the raw material or for the producer of the completed article. The owner of the soil, producer of the raw material, and supervisor of production were one and the same. The peasant planted, reaped, threshed, and cleaned the grain, turning it over to the miller who received his pay in kind for the grinding. The peasant then gave the meal to the baker, who, on receipt of

his wage and a fee for firing, delivered a specified number of loaves, dependent on the amount of meal. During the course of preparation the material had not been capital, but, as Bucher viewed the matter, "a mere article for use in course" of further preparation. Such things as management earnings, interest charges, and middleman's profits were absent, only wages for work actually done appearing.

The system thus described had both advantages and disadvantages. When needs were simple, excellent products and the adjustment of supply and demand were obtainable. Exchange, in which the supplier of raw materials obtained goods made from those raw materials, remained at a minimum. The consumer, however, ran the risks of production. If a sudden need arose, that need might long remain unsatisfied, for the wage-worker might be employed in another locality. In homework, too, some of the raw material might be stolen or changed. To the wage-workers themselves there were annoyances, such as loss of time occasioned by moving from place to place and irregularity of employment, meaning at times over-work and at times idleness. Only, in fact, when the idle time could be turned to agriculture or some allied industry was there a high measure of satisfaction in wage-work.

Nature and Origin of the Crafts.—The wage-worker received a fixed sum for his labor. The handicraftsman, on the other hand, owned all the means of production and sold for a fixed price the article which he made, at first, from his own raw material by his own labor. As time passed, however, two distinct divisions appeared—one involved in the production of the raw material and the other in the production of the manufactured article. Although the business naturally increased somewhat in size, craft industry tended to remain small. If one line threatened to become too large, other handicrafts split off from it, a procedure which created jealousies and quarrels. Naturally handicraft industry was confined to the towns, such peoples as the Russians with little town life failing to develop a national handicraft.

The gild system of western Europe doubtless obtained some of its characteristics from the organizations of eastern Europe. The empire was a selfish socialistic enterprise and as

early as the fourth century had made membership in corporations compulsory and hereditary. Industry became a state enterprise. Apprentices appeared in the guilds, in time perhaps becoming free laborers but subject in their various organizations to the control of the prefect, their "grand master." The state fixed wages and conditions of pay and controlled apprenticeship, meddling in everything. In Constantinople, by the close of the ninth century conditions resembled those in Europe of the Middle Ages. The perfumers, the spicers, and the merchants of pork products received supervisory powers somewhat similar to the "view of the craft" enjoyed by the powerful guilds of the Middle Ages.

The conquest of Rome made little change in the industrial organization of Italy. Guilds, though burdened by the Theodosian Code, continued. The son, of necessity, followed his father's craft and members of a guild could marry only the daughters of men in the same craft. Such rules made the industrial organization a sort of caste system.² In time Venice and Florence, the chief industrial cities of Italy, developed an elaborate industrial organization. Florence in particular had a regular hierarchy of guilds. Her weavers were among the most skillful in Europe. That fact led her to import the poorly woven cloths of northern Europe which were dyed, refinished, and exported, thus adding to the wool-weaving craft a second craft. In point of time the silk-making industry supplied the third guild, which was accompanied by the money-changers' or bankers' guild. The doctors and apothecaries with their dependents, the surgeons and midwives, formed a fifth guild, the furriers a sixth, and the judges or notaries a seventh. There were also fourteen lesser guilds known as five "intermediate" and nine of "little people." Linen-makers and butchers were representatives of the first and masons, carpenters, and bakers of the second. After 1282 the Florentine guilds dominated the municipal authorities and virtually ran the government.³

German historians often claim that the guild developed from

² Theodoric did show particular favor to three senators, who, with their freemen, freedmen, and slaves, handled the pottery business.

³ See Knight, M. M. *Economic History of Europe to the End of the Middle Ages*, pp. 119-123. The woolen industry became a capitalistic organization, a virtual "trust" Similar conditions in other guilds led to a class struggle and the dictatorship of the Medici, wealthy bankers.

the artisan labor on the manors. Its origin is, nevertheless, in dispute and perhaps the only safe generalization is, as Professor A. P. Usher says, that it is "a spontaneous outgrowth of industrial conditions." As early as the twelfth century, according to Professor W. Cunningham, craft guilds existed in Norman, Flemish, and German towns, and they soon appeared in England among the foreign artisans who had settled in the towns. The English Pipe Roll for 1130 shows that guilds then existed among the weavers of London, Lincoln, and Oxford. Bakers' guilds appeared almost as early as did the weavers' guilds and the goldsmiths' guild even claimed land ownership prior to the Conquest of 1066.

The Question of Authority.—Apparently throughout western Europe the weavers' guild began and led the struggle against the old governing bodies, the merchant guilds or the town "commune." As plain as the flaming nose on a drunkard's face is the reason. Clothing was the first industry in which the demand was sufficiently strong to lead men to devote their whole time to it. In baking much less skill was required than in weaving, and baking, consequently, long remained a family affair. Bakers were never so numerous as were weavers and manufacturing primarily for immediate consumption they seldom came into conflict with mercantile trading monopolies. The guilds at first made an annual payment to the king for recognition and sanction. Unauthorized guilds were fined as "adulterine." The earliest charters provided that no one in the town or perhaps district should exercise the craft unless he was a gildsman. The burgesses of the towns, at first through the merchant guilds to which they usually belonged, of course, resented the efforts of the craft guilds to exercise supervision over their members and long sought to control the craft guilds. As time passed, however, the severity of their restrictions decreased. The Statute of 1335, which allowed foreign merchants to carry on unrestricted trade in England, was framed in such a way as to include English craftsmen, and it inflicted a death blow on the merchant guilds.

Yet the town authorities, often tradesmen and manufacturers, necessarily had relations with the craft guilds. Some writers, such as Brentano, think that the craft guilds were en-

tirely independent, that they regulated the character of the work, the various manufacturing processes, prices, wages, and the relation of members. Other writers point out that town authorities issued regulations similar to those of the guilds and ascribe to the guilds little more than police powers. The best view would strike a mean between the two views stated. The town magistrates had a real, though vague, authority over the guilds, an authority sufficient to pass ordinances binding on any craft. As a rule, nevertheless, the craftsmen themselves drew up the guild statutes, which were approved as a matter of course by the town authorities. Wide differences naturally appeared in jurisdictional matters. Most of the crafts could deal in their own courts with petty disputes, but the accused party could demand a trial before the mayor and the town authorities could try the offender in the first instance if they so desired. Although the late guilds had virtually no judicial powers, some of the old guilds, such as the London weavers, had independent judicial power and their members could claim trial in the guild court alone. Their power to levy fines on non-members, however, was soon abrogated.

The reign of Edward I, 1272-1307, marks a turning point in the history of the English guilds. Before that time the guilds had been compelled to pay the king or other authorities for recognition⁴ and had encountered grave difficulties in the maintenance of their rights against municipal authorities. Edward I used the guilds to check as much as possible the municipal governing bodies. Guilds increased rapidly. Hitherto they had been limited largely to such elemental needs as food and clothing—bakers and butchers and leather dressers and cloth workers, or weavers, fullers, and dyers. Pie-makers, scriveners, wax-chandlers, brace-makers, helmet-makers, spurriers, farriers, and others now appeared. In some of the new trades the powers of the wardens, overseers, or masters were limited virtually to the taking of offenders to the mayor's court, and in the various new crafts a member might appeal from the craft to the mayor. That official, notwithstanding, usually called in a small jury from the offender's craft. Be-

⁴ As early as 1099 the weavers of Mayence had obtained exemption from feudal dues.

fore the death of Edward III, in 1377, most of the craftsmen had become prosperous. Citizenship, consequently, was connected with membership in a craft. The old jealousy between the craftsmen and the burgesses, or the gild and the "commune," therefore, disappeared.⁵

Craft Gild Organization.—With the growth in number of gilds, of which London alone had forty-eight by the death of Edward III in 1377 and sixty by the close of the fourteenth century and smaller towns increasing numbers in the next century, organization took a fairly definite form. The most important feature of this organization was the authority of the officers, commonly designated as bailiffs, masters, overseers, or wardens. That authority included the supervision of the industry and the prosecution of offenders. The officers were chosen yearly at full meetings of the craft, attendance being stimulated by a fine assessed on absentees. At such meetings the craft regulations were adopted for submission to the mayor and the alderman for approval. No artisan could practice his craft in a gild town without gild approval and, of course, admission to the gild. After the middle of the fourteenth century, apparently, admission to the freedom of London and to the craft occurred at the same time.

An understanding of the craft gilds will be attained best perhaps by specific examples, as the Ordinances of the White Tawyers of London in 1346. The white tawyers at their annual meeting elected two overseers who were required "to enquire and make search, and loyally to present to the said Mayor and aldermen such defaults as they shall find touching the said trade without sparing anyone for friendship or for hatred, or in any other manner." An example of such faults was "all skins falsely and deceitfully wrought." Resistance to the overseers and neglect by the overseers drew the same penalty, fines, and for continued offenses expulsion.⁶ Lest, of course, the overseers might desire to continue in office indefinitely penalties were imposed upon them if they failed to call

⁵ See Ashley, W. J. *An Introduction to English Economic History and Theory*, Vol. I. Part I, pp. 81-89.

⁶ See Bland, A. E., Brown, P. A., and Tawney, R. H. *English Economic History Select Documents*, pp. 136-138.

the annual meeting. Fines and confiscated goods, generally those "falsely and deceitfully wrought," went to the gilds.

When, however, the expression "craft gild" is used we normally think not of the officers,—overseers, wardens, or stewards,—but of the three types of workers,—apprentices, journeymen, and masters,—workers, who as early as the thirteenth century, appeared in the highly developed gilds of Paris.

Lowest in the scale of workers was the apprentice. Invariably young in years he was willing in order to learn the trade to work for the master for a specified number of years. The years at first were variable, probably depending upon the demand and the supply of labor at the time, the relative bargaining powers of the two parties, the age of the apprentice, his personal characteristics, and the nature of the trade. As time passed, however, the years were fixed. The Paris glass cutter was required to serve ten years and the maker of paternosters was compelled to serve twelve years. Perhaps a fair average for apprenticeship in France was nine years; for England it was seven years.⁷ In return for instruction, board, and lodging, and perhaps a little spending money the apprentice was to work well and faithfully, performing all of his duties to the best of his ability. Both parties to the bargain were protected by regulations. Thus, the apprentice was at times compelled to give surety lest he leave before his time was up or when in debt to his master. On the other hand, gild regulation provided for inspection of his master's teaching, in many crafts the principal master making the rounds at least once a year. Even if a master was out of work, and had the right to turn his apprentice over to another master, that apprentice was protected usually by subjecting the master to severe punishment if the change proved unfair to his employee.⁸

Less clearly defined than the position of the apprentice was that of the journeyman, or the individual who had completed a period of apprenticeship and was seeking work at a wage. Occasionally the journeyman might gain a position of some importance. Thus, at Exeter, England, in 1481, two of the four

⁷ See Knight, M. M. *Economic History of Europe to the End of the Middle Ages*, pp. 222-226.

⁸ See Cunningham, W. *The Growth of English Industry and Commerce During the Early and Middle Ages*, pp. 349, 350, for an indenture dating about 1480.

wardens of the cordwainers were journeymen. Once in a while, too, they voted on important ordinances. Yet, on the whole, regulations were restrictive to the journeymen. St. Omer, for example, prohibited the journeyman from going from shop to shop to seek work, expecting him to wait in public until hired. Regulations at times, moreover, required masters to give preference to the decayed master and to the native worker over the foreign laborer. Journeymen in England as a rule were not admitted to the mastership until they had served two or three years as workers. During this journeyman-ship they obtained about two-thirds as much in the way of a wage as the master. At times the journeymen were compelled to produce "masterpieces." The cobblers, for instance, were compelled to repair a few shoes, or the fletchers to make a few arrows. Naturally the masters at times wanted to restrict competition. Some thus became capitalists, hiring journeymen already trained or subdividing their work so that anyone could handle it. Such a course led to the development of a wage-earning class and friction with the journeymen who were kept out of the mastership by high fees, difficult examinations and the like, a discrimination which in time brought about the overthrow of the gild system.

The most important of the gild classes before the law, and otherwise, was the master. Theoretically he had served an apprenticeship, usually had passed some time as a journeyman, had proved his ability by the masterpiece, had married, and had obtained a home of his own. He was thus an important householder, fitted by skill and position to train an apprentice. His family, too, held an important position. His eldest son might claim to be free of the craft by patrimony, if he so desired, and his wife and daughter might work for him.

If, to note briefly the position of women, a widow among the London weavers married a man who was not a weaver, she had to give up her house to a man who was a weaver. In London no organizations of women were known in the fourteenth century and their privileges were really few. In the French towns, on the other hand, the women frequently had gilds of their own and were recognized in other bodies, apparently without disability because of their sex.

Objects and Methods of the Craft Gild.—A question naturally arising from this elaborate organization is, "What was the object of the gild?" Judged by gild regulations the object was at least twofold,—the protection of the group as a unit and the maintenance of equitable relations among its various members.

The first object was realized through the monopoly of the town market, all outside competition in the gild article, if possible, being prevented.⁹ This monopoly of the town market encountered opposition. By the fifteenth century numerous shops beyond the jurisdiction of the gilds appeared. The gilds naturally sought to prevent the development of manufactures in these near-by districts, using prohibition or refusal to supply raw materials, or the careful protection of trade secrets. In Venice individuals who divulged secrets relative to the glass industry were even subject to the death penalty.

The gilds attempted to realize their second object, the preservation of equality of opportunity among their own members, by controlling the supply of raw materials, by regulating production, and by supervising the sale of the finished article. To control the raw material they generally enforced and broadened town regulations relating to forestalling, or the purchase of supplies before they had been placed on the market, and engrossing, equivalent to our modern cornering of the market, and at times they required the gildsman to share his knowledge of some special bargain with his fellow gildsmen. To regulate production they adopted varied rules—rules for the testing of the qualifications of the apprentices through the inspection of their master's teaching and through examination, in the presence of witnesses, of the work of the apprentices and also the journeymen; rules prescribing the number of journeymen and apprentices that a gild member might hire and even specifying hours of work and wages; rules prohibiting night work and other causes of inferior work; and rules to direct the work of their supervising officers. To regulate the activities of their members in the sale of prod-

⁹ See Bland, A. E., Brown, P. A., and Tawney, R. H. *English Economic History*. Select Documents, pp. 141, 142, for an explanation of this desire on the part of the Bristol dyers in 1407.

ucts the guilds likewise made various regulations. Regrating, or the selling of a product at a higher price without having made an addition to its value, was forbidden. Prices were frequently fixed by the guilds if they had not been fixed by the towns. Rules regulating the time, place, and manner of sales, and normally prohibiting the enticement of customers from fellow-gildsmen were also passed by the guilds. Penalties were, if possible, enforced for putting the better goods at the top of a bale, for moistening articles sold by weight, for selling second-hand articles as new, for soldering broken swords together, for selling sheep leather for doe leather and for kindred frauds.

In addition to the economic rules many guilds urged mutual assistance, kindness to fellow members, and obedience and faithfulness on the part of the various members. Craftsmen were admonished to assist needy members, to visit those sick or in prison, to attend burial services of fellow guildsmen, and to aid their orphans and widows. Religious services were held on the day of the saint to which the guild was specifically dedicated as well as at funerals. Some guilds actually maintained a shrine or a chapel in a parish church. Guild fines were paid normally in wax in order that candles about the bodies of dead members might never be lacking. Dressed in their livery, members walked in procession to the church, paid their devotions, and participated in the services in memory of the departed. At times craftsmen willed property to the guild for the partial support of a chaplain and other expenses related to their "obits," or masses for their own souls or the souls of their departed relatives. At the annual guild day they feasted in their halls or meeting places on ale, bread, and cheese or luxuries dependent upon their wealth. At times, too, they gave plays depicting Bible history or the lives of the saints and attended the same church.¹⁰

Merits and Defects.—The guilds protected workers and consumers and seemed to place the interests of the community above those of the individual. Although wage and labor regulations were designed primarily for the benefit of the mas-

¹⁰ See *Ibid.*, pp. 135, 137, for some of these regulations as stated in the Ordinances of the White Tawyers of London.

ters, they set standards and protected the workers against arbitrary exactions. Price and quality regulation protected both buyer and seller, insuring a fair wage for the worker and good quality for the purchaser. The guilds appear to have recognized the importance of good workmanship and to have "cooperated loyally with the municipal authorities to that end." For a local market Professor E. Lipson believed that the guild was "admirably designed to achieve its object, the limited production of a well-wrought article."

The greatest defect of the guilds, one sapping the advantages, was the promotion of a spirit of monopoly and jealousy against the "stranger within the gates."¹¹ Actual trickery was another drawback. By 1390 the frauds of the west county clothiers of England were so great that the reputations and even the lives of the export merchants were in danger. Two years afterward the Guildford cloths had lost their reputation because of fraud. In 1410 the Flemish merchants became angry over the shoddiness of Norfolk worsteds and within thirty years the foreign demand for worsteds had virtually died. By 1464 English cloth was everywhere in disrepute, foreign cloth being largely imported into England. What were some of these dishonest practices? Gildsmen stretched and strained cloth and folded it in such a way as to hide the defects. They fastened bad cloths to good cloths and sometimes substituted inferior material for the good cloths which their customers had bought. Gildsmen other than cloth workers practiced dishonesty. Some made poor leather look like the best and sold it at night to simple customers. Some manufactured pots and kettles out of bad metal which melted when subjected to heat. Many made use of false measures and weights. Some London bakers perhaps showed greater ingenuity but no greater sin than did other gildsmen. By means of a trap door in their kneading board and a boy concealed under the counter they stole a large part of the dough from before their customers' very eyes.¹²

Manufacturing Regions.—Naturally the industrial devel-

¹¹ See Lipson, E. *Economic History of England, The Middle Ages* (A. and C. Black, Ltd., London, 1915) p. 390.

¹² See Salzmann, L. F. *English Industries of the Middle Ages* (Houghton-Mifflin Company, Boston, 1913) pp. 203-206.

opment of Europe varied in a marked way. Northern Europe, Switzerland, eastern Europe, and the Balkans outside of Constantinople, for the most part, had only the crudest manufactures of foodstuffs, clothing, and weapons, the bare essentials of a crude life. Constantinople, the Italian cities, Moorish Spain, and Holland had the best manufactures. The remainder of Europe had average manufactures.

The Moors, far superior to the Teutonic tribesmen in culture and art, naturally exploited the rich mineral resources of Spain, mining alum, gold, iron, copper, lead, ochre, both red and yellow, quicksilver, silver, and tin. Even though some of these articles were of little importance in themselves, they furnished the basis for important metal manufactures. Toledo swords, for example, were famous all over the world both for beauty and for temper; an establishment near Cordova produced a thousand finished shields each month; and Murcia was famous for its brass and iron manufactures. Jewelry, mosaics, and vases of glass and pottery were also the products of Mohammedan workmen. The "exquisite lustrous pottery" generally designated as Hispano-Moresque was a contribution of the Moors. Paper manufactures likewise were introduced by the Arabs. Two other groups of Moorish manufactures—leather and textiles—were especially important. Nearly every Moorish town had leather manufactures, those of Morocco and Cordova being the product of the best tanneries of the world. The Moors, in fact, introduced "the art of embossing leather, now known in England as morocco and Cordovan." They also introduced cotton and silk, and became especially famous in the manufacture of the latter. From all over Europe came the demand for their products, sashes, woolens, and carpets famed for fine texture and brilliant color. Arab ingenuity was revealed especially in dyeing, the process of dyeing black with indigo being a significant gift to the world.

The most important industrial region of Europe during the Middle Ages was Flanders. Town life had developed early, some of the cities, such as Bruges and Ypres, owing their origin to feudal castles. The chief industry was weaving. Ghent was noted for its woolen cloth, and Ypres was famous for its

linen. Most towns had a particular weave, or pattern, or dye. Many present-day names come from old towns where particular cloths were made: arras, a hanging curtain, from Arras; cambric from Cambrai; valence from Valenciennes; and the diaper pattern from Ypres. Both quality and quantity were emphasized. Matthew Paris even insisted that "the whole world was clothed in English wool manufactured in Flanders." Although his language was as figurative as that of the track man who said that he could outrun a bullet, the English wool was so important to Flemish industry that Holland became an ally of England during the Hundred Years' War. Other manufactures, such as foodstuffs and metals, were produced. Some of the cities, notably Liege in iron and Dinant in copper, were also famous for metal work.

SELECTED REFERENCES

Addison, Julia De Wolf. *Arts and Crafts in the Middle Ages* (Boston, L. C. Page and Company, 1910) Chapters I-XI.

Ashley, W. J. *An Introduction to English Economic History and Theory* (London, Longman's Green and Company, 1920) Vol. I, Part II, Chapters II and III.

Bucher, Carl (S. M. Wickett Translation). *Industrial Evolution* (New York, Henry Holt and Company, 1912) Chapters I-IV.

Lethaby, W. R., in *The Cambridge Medieval History* (Cambridge, The University Press, 1911 and 1922) Vol. I, Chapter XXI and Vol. III, Chapter XXI.

Lipson, E. *Introduction to the Economic History of England* (London, A. and C. Black, Ltd., 1915) Pages 279-347.

Salzman, L. F. *English Industries of the Middle Ages* (Oxford, The Clarendon Press, 1913) Chapters I-V.

Usher, A. P. *The Industrial History of England* (Boston, Houghton Mifflin Company, 1920) Chapters III and VII.

Villari, Pasquale (Linda Villari Translation). *The Two First Centuries of Florentine History* (London, T. Fisher Unwin, 1908) Chapter VI.

CHAPTER XI.

COMMERCE

Decline of Western Commerce.—Rome was not a commercial city. Nor was Rome a parasite, for by the Roman peace she gave a security that caused commerce to reach unknown heights. Alexandria and Antioch, drawing their wares from places as distant as India and China, were great Oriental markets. Carthage was an important center of the African trade. Asia Minor, southeastern Europe, and northern Africa, too, reached the zenith of their development under Roman protection.

Naturally the merchants struggled to keep the prosperity won, but though the decline came slowly it came surely. The tribes which overran Rome at first lived more from the yields of flocks and herds than they lived from farming, and, they had almost no towns and little trade. The barbarian chieftains who established their governments on the fragments of the Roman state proved unable to follow the Roman model. Because governments were thus too weak to protect life and property there was little incentive for the peaceful mercantile life. Robbery and piracy proved more profitable than did honest industry. Roads and bridges decayed, rivers became obstructed, and even such powerful rulers as Charlemagne could do little to check the downward movement.

Commercial Conditions about 1000.—With kings proving unable to govern their territories, officials were compelled to support themselves from the revenues of the land, sums which under a strong ruler would have been exacted as taxes. The little governments of the feudal lords, practically hereditary, are said to have numbered more than ten thousand in tenth-century France alone. Central governments attempted to

compel these feudal lords to maintain the roads, but they usually escaped contribution or had the work done without proper supervision.

The few merchants, notwithstanding such difficulties, suffered more from robbers than they suffered from the miserable roads. The brigands were so numerous, in fact, that the merchants journeyed in bands for protection and nearly all strangers were suspected. English laws beginning about 700, and continuing for several centuries, show this fear: "If a man come from afar, or a stranger, go out of the highway, and he then neither shout nor blow a horn; he is to be accounted a thief, either to be slain or to be redeemed."¹ In the eleventh century the English government passed a law "that every man above twelve years of age make oath that he will neither be a thief nor cognizant of theft." Merchants wanted public supervision and required residents to act as security for them lest they themselves be charged with robbery. Tenth-century England forbade a man to buy or to sell goods worth more than twenty pence except in a town in the presence of a public official and witnesses. In that practice is the origin of the market.

Slaves formed an especially important article of commerce during the early Middle Ages. Traffic in them extended all over Europe. In England the traffic was chiefly in convicts, but the fact that a law of Alfred's reign forbade a father to sell his daughter to strange people indicates that other forms of slavery were common. Although later English laws forbade the trade, eleventh-century Bristol merchants not only collected slaves in England to sell in Ireland, but actually bred them for the market.

Foreign trade was, of course, found, but it was confined to articles of luxury which could be used only by the wealthy clergy and the nobility. Wines and spices from southern Europe and furs from the Baltic entered into the distant trade. Yet long voyages were still so uncommon that an English law of approximately 900 stated that "if a merchant thrived so that he fared thrice over the wide sea by his own vessel" he might be promoted to a higher class. Records seem to show

¹ See Day, Clive. *A History of Commerce*, pp. 33-40.

that the Scandinavians made voyages to the north and to the west and silver coins recovered in Russia and the Baltic countries prove that a land trade of some importance existed with southwestern Asia. As time passed commerce, of course, increased. English records, for example, show that in the eleventh century ships from Flanders, France, and Germany entered the port of London. They purchased wool and pigs and sold fish, furs, gloves, wines, and spices.

Rise of the Towns.—In the days of the Roman empire town and city life was common, but with the overthrow of that empire towns decayed. Only four score of more than five hundred "modern French cities can be traced back to the Roman period, and all of these lost their identity as towns and became simple villages in the intervening time."²

Around monasteries, feudal fortresses, and army posts, however, a town life began to sprout and later, in the eleventh century, real trading towns, especially in places of security and in places where the prospects of profit seemed good, began to develop. Castles and monasteries gave some guarantee of protection and breaks in the line of transportation afforded some prospect of profit. Near the strongholds of the nobility and the clergy and on the seacoast, on rivers, at fords, and on the intersection of land routes, towns, therefore, appeared.

But we must not think that the towns of the Middle Ages were important. Probably Constantinople and Paris were the only cities that had a hundred thousand inhabitants. Although London was close to that number, the thirteenth-and-fourteenth-century English town of the first class averaged less than five thousand inhabitants. Few were double that number and many had less than one thousand. During the closing part of the Middle Ages even such noted continental cities as Nuremberg and Strassburg had less than twenty thousand inhabitants and Frankfort-on-the-Main had only half that number. Although Colchester, England, in 1295 was an important town, its tax rolls showed little household furniture and revealed the fact that most of its personal property was in live stock and agricultural products. In the fourteenth century, nevertheless, its population doubled. In that

century and the following century most of the English towns cast off the worst features of medieval squalor, increased their wealth, and spent considerable money in public improvements. Towns elsewhere also improved, many of them erecting beautiful churches and gild buildings.

Trade of the Towns.—In the typical town just described wares were offered for sale in the market place or in the little shops at the front of the dwelling houses. Possibly the shops, like cellars, were at first below the level of the streets. In London fishmongers and butchers seem to have used at first movable boards or stalls on which to display their goods, then sheds, and next shops. A London stall in a good location was leased for ten years in 1375 at an annual rental of forty shillings. A Colchester butcher about the same time leased a plot of ground nine feet by five feet on which he was authorized to erect a stall. His rent was two shillings a year.

With a growing need for permanent shops, stalls, at times protected by sloping wooden roofs and at times by the projecting upper stories, were fastened by hinges to the lower part of a house. When not in use, they could be let down. When in use, they often proved nuisances in the narrow streets; hence a London ordinance, during the reign of Edward II, ordered that stalls be not more than thirty inches wide. With the increase in business more space was needed. The room to which the stall was attached then served as a shop and perhaps a cellar or storeroom under the shop added space. In Butchers' Row, Shrewsbury, probably built in the fifteenth century, the shops were good-sized rooms divided into three parts, one allowing entrance from the street and the upper part of the other two being employed as shop windows.

The trade from town to town and from towns to the rural districts was carried on by peddlers, chapmen, and merchants. The peddlers were especially numerous in the Middle Ages. Jovial, with fair speech, and enticing words, they worked everywhere. The only shop many people saw was the shop carried on the peddler's back. Although they were not quite so poor, the chapmen resembled peddlers. They used, if possible, the watercourses, for charges were less than they

were on the roads and the chances for protection against robbers were greater than they were on the roads. Langland and Chaucer both describe the highest class of traders, the regular merchants with sufficient business to be in debt. Many of them had visited the Continent in order to sell goods and to make purchases. Many were substantial merchants, so important that their presence at Westminster was frequently urged, and Edward III borrowed money from them as well as from the Lombard bankers. The De la Poles of Hull, later earls of Suffolk, belonged to the merchant class as did Richard Whittington, three times Lord Mayor of London and a knight, and William Canynge of Bristol, winner of a fortune in foreign trade.

Town Policy.—Virtually every town levied a tariff. The following extract is a fairly typical illustration of London's regulation:

Every load of poultry that comes upon a horse, shall pay three farthings, the franchise excepted. . . If a man or woman brings any manner of poultry upon horse and lets it touch the ground, such person shall pay for stallage, three farthings. And if a man carries it upon his back and places it upon the ground he shall pay one-half penny of whatever franchise he may be³

A second rather common phase of town policy related to the exportation of town products, a procedure often forbidden because of the desire to husband rare materials and to favor the business men and the people of the locality. Such instances appear from the following citations: "No butcher, or wife of a butcher shall sell tallow or lard to a strange person for carrying to parts beyond the sea; by reason of the great dearness and scarcity that has been thereof in the City of late." "No person shall carry corn or malt out of the City, under penalty of forfeiture."⁴

The merchants of a distant town and sometimes the merchants of different jurisdictions of the same town were discriminated against, the former being compelled to pay dues on the goods brought in for sale. From those dues merchants of the town were exempt. Again, foreign merchants might have their wares seized because a merchant of the town in

³ See *Ibid.*, p. 50

⁴ See *Ibid.*, p. 50

which they were trading had been mistreated in their town. Foreign merchants, moreover, were long excluded from the retail trade. Occasionally, too, protection might be afforded in the different jurisdictions of a town against other parts of the same town. At one time in London, for example, bread made in one jurisdiction could not be sold in another jurisdiction.

A fourth phase of town policy related to the markets. Their regulations were commonly designed to force all dealers to display openly their wares, a provision which would allow the customer to know the amount on hand. Sales were not allowed to start prior to a certain hour, or before the ringing of the market bell. Unsold commodities were not removable until after a specified time. Efforts were also made to prohibit purchase for regrating, or selling again, commonly at a higher price, prior to a certain hour.⁵ All merchants were compelled to make use of officials to perform their measuring and weighing for them and when they wanted customers they were required to employ as agents officials properly sworn.

Many towns of the Middle Ages sought to set the prices at which goods must be sold. The assize regulated the price or weight of a loaf of bread according to the price of wheat. A similar system extended to ale and other commodities. The rights of assize, at first held by the English government, were extended soon to the towns also, in the fourteenth and fifteenth centuries the matter being left almost entirely to them. Town records soon contained various regulations intended to secure good quality, full weight, and fair prices. Realization of the last object was attempted through "the mayor's price," or the direct control of prices, and through provisions intended to keep regrators, regratresses, and hucksters "from getting between the consumer and the producer."

The Gild Merchant.—The word "gild" perhaps originally meant a payment for religious purposes, but in time it came to mean a "place or association for sacrifice." The word "hanse," originally meaning a collection or a heap, soon came to mean an association and in time an association of traders.

⁵ See Ashley, W. *An Introduction to English Economic History and Theory*, Vol. I, Part II, p. 58.

The two words often were used interchangeably, but in time the expression "hanse" was applied to merchants away from home and then to a league of the towns which they represented.

In Charlemagne's day merchants associated together for protection were referred to as *gildonia*. In the eleventh and twelfth centuries the term was shortened to *gilds*. Pirenne believes that the origin of the trading town of the tenth century or earlier was the *portus* or *emporium*. This market was separate from the military post or the episcopal city by its side. The *portus*, or port, living by commerce, usually enjoyed more or less freedom because the abbots and the lords wanted its products. Its inhabitants, often adventurers, fugitives, or other undesirables, were freemen, many of whom had lately escaped from serfdom. Usually if a man could live in a town for a year and a day without being claimed as a serf he was regarded as a free man.⁶

Professor Gibbins says that the merchant gilds "existed certainly in Edward the Confessor's time" and "were recognized at the time of the Conquest, for they are recorded in Domesday here and there as possessing land."⁷ Professor F. A. Ogg declares that the first mention of a merchant gild in England was in 1087 in a town charter⁸ and Professor W. J. Ashley urges: "The first positive mention of a merchant gild is certainly not earlier than 1093."⁹ After the close of the eleventh century gilds developed rapidly, particularly in England, but also in France, Germany, Italy, and the Netherlands.

The merchant gild was formed primarily for the purpose of trade monopoly—to control the town market and also to trade in other towns. Naturally the character of the monopoly varied somewhat, but virtually everywhere non-members could buy and sell victuals. When, however, they attempted to participate in regular trade, they became subject to tolls not imposed upon the gild members. Merchants prosperous enough to enter the gild, but reluctant to do so, were coerced by repeated fines. At times entrance oaths required mem-

⁶ See Knight, M. M. *Economic History of Europe to the End of the Middle Ages*, pp. 205-207.

⁷ *Industry in England*, p. 92.

⁸ *Economic Development of Modern Europe*, p. 66.

⁹ *An Introduction to English Economic History and Theory*, Vol. I, Part I, pp. 70, 71.

bers to inform their officers concerning infractions of the rules. Entrance fees were charged and they with other dues went to the gild chest and shortly for the common gild purposes, especially for the festivities. The various parliaments of Edward I seem to prove that merchant gilds existed in ninety-two out of the one hundred and sixty towns represented. At first the gilds included craftsmen as well as merchants. Of the nine members at one time belonging to the merchant gild at Shrewsbury one was a butcher and two were fishermen. The eldest sons or heirs of gildsmen had free entrance to the gild and younger sons could obtain entrance at reduced fees. Members at first could sell their rights or will them even to women who might use the rights or turn them over to sons or husbands. Merchants from other towns were admitted to membership. Neighboring lords of manors and near-by monasteries likewise attained admission.¹⁰

Gild objects and methods appear best in a study of particular ordinances. Those of the Gild Merchant of Southampton form the subject matter of this paragraph. They provided for an alderman, a steward, a chaplin, four skevins, and an usher and for two regular meetings each year. They promised specified alms to the lepers of La Madeleine at the time of the gild sessions. They provided for relief for poverty-stricken gildsmen. They forbade the sale of gild membership and made regulations concerning the watch and burial of dead members. They provided that the alderman and the steward with one of the skevins should go, at gild cost, to procure the release of any imprisoned member. They attempted to punish gildsmen for quarreling, fighting, slandering, gossiping, and refusing to pay debts. They likewise sought to punish outsiders who attacked gild members. They also required their officials, each month or at least four times a year, to "see that the assize of bread and ale be well kept in all points according to the price of corn." The gild merchant thus aided in the town government and in the execution of the king's orders. The most important of the rules, however, related to economic affairs. Such regulations forbade forestalling and engrossing and required the gildsmen to share good bar-

¹⁰ See *Ibid.*, Vol. I, Part I, pp. 68-76.

gains with each other. They also limited, for the most part, the retail trade of the town to the gild members.¹¹

Individual members of the various merchant gilds in general were allowed certain rights, but the interests of the group as a whole were guarded. The Leicester cloth dealers going to a fair at Boston were required to place themselves on the south side of the market and the wool dealers were required to station themselves on the north side. Later the Leicester merchants, though allowed to take cloth home at night for security, were required to sell it within the "range" or assigned row. Only thus could the gild merchant properly supervise the market and prevent the sale of fraudulent wares. At Southampton any gild member could claim a share in a bargain which he witnessed provided he gave proper security. At Berwick a man who purchased herrings was compelled to share at cost price with the gildsmen present, but a man not present could share bargains only by paying his share of the price plus twelve pence to the buyer as profit. Ordinances against acting as agents for non-members or helping a strange merchant to purchase to the harm of the gild were frequent. Rolls recorded numerous fines for dishonest practices such as bad dyeing, mixing inferior wool with good wool, short weight, for selling above the assize, or fixed price, and for forestalling. Sick members were visited, food and wine were sent to them from the feasts, poor members were relieved, daughters were dowered for the convent or marriage, and funerals were attended.

The merchant gilds aided in the growth and often dominated the government of towns. As time passed they obtained from the king or the manor lord such valuable commercial privileges as coinage, holding fairs, and exemption from tolls. Freedom of justice and the right of self-government also were obtained. Probably, too, the gilds, as representatives of the town, purchased the *firma burgi*, thus becoming their own tax assessors. At times, also, they aided in buying a town charter from a king or a lord in need of immediate cash. They afforded valuable service in increasing town population, in producing

¹¹ See Marshall, L. C. *Readings in Industrial Society* (University of Chicago Press, Chicago, 1918) pp. 77, 78.

unity and cohesion, and in bringing to life the "idea of the corporate unity of municipal life."

Land Trade.—One of the most striking characteristics of the Middle Ages was the poor condition of the roads. Four to eight horses or oxen often were required to pull an ordinary wagon; hence pack animals were used. In 1499 a glover on the way to Aylesbury market in England was drowned, as was his horse, in a pit. The miller who had dug the pit was acquitted by the jury because he had no malicious intent and knew of no other place where he could obtain the desired clay.

Roman bridges, like the Roman roads, also fell into decay. If they were rebuilt—at times mere ferries or fords were used—wood or bridges of boats were employed commonly in place of stone. During the reign of Richard II a wooden bridge, near the castle, was built at Rochester. It consisted of nine piers. The repair of the different arches was allotted to different people, the bishop having the first, the king the fourth, the archbishop the fifth and the ninth, and the neighboring manors and lands the remaining arches. In 1376 the bridge over the Trent at Nottingham was pronounced "ruinous" and responsible for the drowning of several persons and horses and the loss of considerable property.

Because of the poor roads and bridges water transportation was employed. Although the rivers were likely to be obstructed by dams or fish wiers, heavy articles could, nevertheless, be transported, virtually an impossibility on land. If a single boat, as some claim, would carry five hundred times as much as one pack animal could carry, a long water route to market was often more economical than was a short land route.

Whether the journey was by land or water robbers abounded. Many merchants in the various European countries were compelled to travel in bands for protection. In France in the thirteenth century the king vainly attempted to hold the feudal lords responsible for the crimes committed on their lands. But altogether too often feudal lords and even kings were partners in the robberies.

Possibly even more harmful to commerce than were robbers were the universal tolls, or semi-legalized robberies. The

money was supposed to be used to repair the roads and to afford protection, but seldom was it so employed. Early abuses led Charlemagne in 809 to forbid compulsion in the use of bridges if short cuts existed, the erection of bridges over dry places, or the stretching of ropes across rivers. A French scholar gives a partial list of seventeen kinds of tolls. A man paid toll if he went over a bridge, under it, or around it. In parts of Germany and France, whether on river or on land, tolls were collected every mile or two. Stations were established at out-of-the-way places and fines were levied on the people who failed to report. At times the toll robbers even formed pools, agreed upon rates, and divided the profits. In 1396 the entire cargo of a Regensburg ship was seized because one small cask had fallen into the Danube. A widely applied rule in Germany made the wagon which broke down so that its axle touched the soil a part of the land and it with its contents the property of the owner of the soil.

In the fourteenth century the tolls on the Rhine between Bingen and Coblenz equaled two-thirds of the value of the merchandise. In the next century, even after reforms had been made, the French tolls doubled the price of goods from Nantes to Orleans on the Loire and from Honfleur to Paris on the Seine. Additional losses through the spoiling of goods or the late arrival at their destination also caused hardships to the merchants. Thus, the monks of St. Beauvais who took three pennyworths of fish from each passing horse load wasted so much time on fast days that the remainder of the fish frequently spoiled before it could be carried to Paris.

Fairs.—The fair, similar to the market in origin, attracted people from a far greater area of territory than did the market and provided for wholesale as well as for retail trade. Markets normally lasted for a day or a part of a day; the fairs usually lasted for several days or weeks. The fairs, in addition to commercial advantages, provided amusement for the people, side shows supplying wild animals, trained dogs, freaks, musicians, poets, clowns, actors, dancing, gambling, and other pastimes known in more recent days.

Although Glasgow may be traced to a fair held at the shrine of St. Ninian, fairs usually developed under the protection of

a feudal lord who granted aid in order to increase the revenues which he derived from the taxes imposed on merchants. In an effort to increase the number of merchants at his fair he frequently attempted to secure exemption for the wares on their way to his fair or even of the persons of the merchants from attachment for debt. In the fair he often allowed a marked freedom of trade, one of the most important features being a special court for the trial of breach of contract and similar offenses. This court was generally known as the Court of Pie Powder, or the court of the dusty foot, because, as was sometimes said, justice could be obtained as quickly as the dust could be shaken from the foot. Such court privilege was highly valued because commercial law had not yet been weaned and because there was little chance for justice in a feudal or manorial court.¹²

Fairs were found in every country of Europe, but perhaps one of the oldest was St. Denis at Paris dating from the seventh century. Later St. Germain, another Paris fair, became important, and still later the fairs of Champagne, of which there were six each lasting for six weeks, one following another, obtained high repute. At these fairs silk, wool, linen, jewelry, spices, drugs, salt, metals, leather, furs, skins, food, drink, slaves, live stock, and other objects were sold, chiefly by French, Flemish, and Italian merchants, but also by German, Spanish, English, Dutch, and Swiss traders. With the imposition of heavy dues and the subjection of Champagne to the French king at the beginning of the fourteenth century their importance declined. To take their place came the fairs of Bruges, Lyons, Cologne, Frankfort-on-the-Main, and Geneva.

Because England was on the outer edge of the commercial world her fairs were less important than were those of the Continent. The greatest of them, lasting three weeks, was Stourbridge, about a mile from Cambridge. It lasted until well down to the eighteenth century in "unabated vigour." Still another great English fair was that at Winchester; it

¹² See Bland, A. E., Brown, P. A., and Tawney, R. H. *English Economic History. Select Documents*, pp. 159, 160 or *Seiden Society Publications*, Vol. XXIII, p. 35, for the light sentence imposed upon a barber who failed to cure a hundred per cent optimist of baldness after collecting in advance.

dated from the reign of William Rufus who granted the privilege of a fair to the bishop for one day in the year. Henry II extended that time to sixteen days. This fair was devoted primarily to the sale of wool and woolen goods. During the period of the fair all trade was suspended at Winchester and in a "seven-league circuit" and at Southampton, just outside the circuit, only victuals could be sold when the fair was in progress. Even the Winchester artisans had to carry on their occupations within the fair grounds. Tolls and duties were graduated; London, Winchester, and Wallingford merchants were free from tolls during the first week, but thereafter only the members of the merchant gild of Winchester enjoyed exemption. During the fair the common was covered with booths and tents and divided into streets named after the types of goods sold, as "The Drapery," "The Pottery," and "The Spicery."

The Sea Trade.—One of the difficulties of sea trade related to the boats. The Scandinavians, early pioneers, had crude boats which were used more commonly for raiding than for commerce, the cargo ships being "tub-shaped, round-bowed, and flat-bottomed." As late as the fourteenth century, the single-masted boat with the square sail was common. Still other boats used in the coasting trade or for short voyages were propelled by oars only. With the Crusades, nevertheless, shipping developed rapidly in the Mediterranean, some boats measuring four or five hundred tons.

A second restriction on sea trade was the backwardness of the arts of navigation. The only means the early navigators knew of determining their position was "dead-reckoning," or calculating the distance sailed from a known point and the course steered. Ordinarily the sailors would go due north or south to the parallel desired and then due east or west, but often they would be eight to ten degrees wrong. Apparently the mariner's compass, first discovered by the Chinese, was introduced into western Europe by the Arabs shortly prior to 1200. It was used as a magnetized needle balanced on water by means of a rush or a cork, but because of the choppy character of the seas it was later balanced on a point as now. Sailing directions also gradually came into use; they described

the coasts, the tides, and the bottom of the route the mariner was to travel. Yet people still retained strange ideas relative to commerce, peopling the sea with horrible monsters and awe-inspiring whirlpools.

A third danger to sea trade was piracy. Ships always went armed and if possible in fleets for protection. Even an ordinary merchantman might turn pirate if it met a weaker ship from a distant town unable to retaliate. Church officials at times even engaged in piracy, and ships, sent out to protect natives against pirates, sometimes plundered ships of their own country as well as those of foreign nations. In the Baltic at Gotland was the stronghold of the notorious "Victual Brothers," who pillaged the ships of all nations. Not until 1394 was their power broken by an expedition of thirty-five vessels. As late as 1485 a fleet of Venetian galleys was attacked off the coast of Lisbon by a group of six vessels. Over four hundred men were killed and wounded and a large amount of booty was seized. Letters of marque, authorizing private vessels to attack in time of war the merchant vessels of the enemy, gave a show of legality to plundering.

Before the invention of the compass voyages were short, but thereafter they increased in length. To sail after November 11 was often regarded as equivalent to suicide and the Hanseatic League at one time forbade its members to sail later than that date. A little later ships loaded with beer, herring, or dried cod were permitted to sail as late as December 6 to supply the market for Lent or to save the perishable cargo. In the fourteenth century boats were sailed and rowed from Venice to Bruges where they met vessels from northern Europe. English sailors traded with the Scandinavian countries, France, and Spain. Yet commerce remained slight because of the high charges of transportation, charges sufficiently high to explain partially why the price of spices in Bruges was often two or three times the price in Venice and why the price of wool in Florence was two to twelve times the price in England.

Development of Commercial Association.—"In the Middle Ages," as Professor Clive Day remarks, "we find the beginnings of that process of association which can be traced step

by step to the formation of the great trusts of the present day."¹³ The use of association appeared especially in the need for a merchant or a trusted representative to go along with the wares. By preference a merchant would select a member from his own family. If several men were grouped together, one would accompany the goods, one would remain at home, and a third would seek sales in a distant city. A man too old to carry on trade actively could associate himself with younger men and still remain in business. Risks, moreover, would be divided, for the capitalist could distribute his money in various enterprises, thus insuring himself against loss because the profits on the successful enterprises would make up for the failures.

Association took the form of the ordinary partnership or the "commenda." The latter in twelfth-century Genoa averaged little more than \$250, as contrasted with \$1250 for the fourteenth-century Hanseatic League commenda. The commendator supplied the capital and ordinarily received two-thirds to three-fourths of the profit; the "tractator" gave his personal services and received one-fourth to one-third of the profit. After a few successful enterprises the economical tractator became a commendator or capitalist. Association was most marked in Italy, some commercial houses having numerous partners, agents, and branches, notable among them being the Peruzzi with 150 agents and fourteen branches. From Italy associations spread to northern Europe, becoming practically universal in commercial enterprises.

Coinage.—The gold solidus of Constantine and Roman silver coins outlived their issuing governments. With Carolingian domination the gold standard shifted to a silver standard. Charlemagne seems to have established a unit pound of 409 grams, making therefrom twenty silver solidi of twelve denarii each. This system still survives in English pounds, shillings, and pence.

The coinage monopoly of the state was almost a fiction for a while after the eleventh century. Associations of handicraft producers and even lords issued coins. Both royal and feudal coins were debased, for example, the solidus in Germany fall-

ing to a sixth of its former content from the thirteenth to the sixteenth century. From the twelfth to the fourteenth century the English denarius experienced a similar fall. The French originated a thick coin, known as the *solidus grossus* and stamped on both sides in place of one as was the case of the German denarius with which it competed. Yet the French coin from the fourteenth to the sixteenth century declined to a seventh of its former value. The innocent people who suffered from the widespread practice of debasement hesitated to make bargains and contracts, thereby injuring commerce. Debasement, however, was not the sole drawback, technical coinage being imperfect with a variation of as much as ten per cent in the pure metal of the same coinage. Greedy individuals and bargain hunters would immediately melt up the good coins for the arts use, thus leaving only light weight and debased coins in circulation.

To the defeat of such schemers and to the help of honest people came in 1252 the gold solidus of Florence. It weighed three and a half grams and was kept as nearly as was technically possible at that weight. Commercial people gladly accepted the new coin and it extended its territory with Italian commerce. Silver, however, because of its usefulness in small-scale trade increased in value in terms of gold, rising toward 1500 from 12½ to 10½ to 1. Fluctuations in the various currencies continued, and differences arose between bullion and metal coins, the last being designated as "pagament."

Even when coins, aside perhaps from the Florentine gold gulden, were full weight there was difficulty in passing them at full weight outside of the places where they were issued. The money-changers, however, could help little in making payments in distant countries. If the debtor merchant bought the foreign money from the money-changer, he had to ship that money, a dangerous and expensive procedure and one sometimes subject to legal restrictions. To avoid such difficulties the merchant might even send commodities to the region where the debt was owed, hoping to sell the articles for cash and to satisfy the debt in that way. But the debtor might not have the necessary commercial knowledge or the opportunity to ship the wares. To overcome these drawbacks the

bill of exchange was introduced. By means of this order debtors and creditors in different places might be satisfied. The creditor in one town would write out an order authorizing his debtor in the other town to pay the money. This order he would sell to the debtor in his own town for cash. That debtor would send it to his creditor in the other town and the creditor there would present it to the debtor on whom it was drawn and would receive the money. Four individuals would thus be satisfied without the shipment of cash. Of course, the difficulty in striking exact balances led to the development of accounting and commercial knowledge, especially in Italy where the practice started.

Banking.—Perhaps along with the monasteries, and the money-changers the first bankers were the goldsmiths, who had strong boxes for the safekeeping of their treasures and who accepted deposits from those not thus equipped, charging at first a fee for the service. If a man wanted to pay a debt with part of his fund, he might in time so indicate on a piece of paper and thus the bank check developed. The money-lender would observe that most of the people preferred to leave their cash with him. So he would lend not alone his own money, but part of that of his customers, getting interest in return and keeping on hand only enough cash to satisfy the probable demand.

The deposit business of banks was furthered, perhaps called into being, by the debasement of coins. The merchants formed communal banks with their deposits either in metal or in the numerous coins estimated at bullion value, and on the basis of those deposits made payments by deposit transfers or checks. Confidence in the integrity and ability of the money-changers failing, large companies took over the banking business.

An important source of these large fortunes was the collection of taxes, a system somewhat similar to the tax farming of the ancient period. This system prevailed from the beginning of the thirteenth century to the end of the fourteenth. Such Florentine firms as the Acciajuoli, the Peruzzi, and the Medici kept agents or factors in all important cities and gathered from all regions the taxes of the Curia, the most important taxing-power of the Middle Ages. They, moreover,

kept correct accounts and accepted money only as determined by the Florentine gold gulden desired by the Curia, thereby making profits on the various moneys evaluated by them.

Still another function of medieval banking was the occasional financing of enterprises, particularly military ventures. Genoa undertook such a scheme in the twelfth century to finance a sea expedition against Cyprus. The association, a sort of share commenda undertaking, was known as a "maona." Many of the wars among the Italian cities were financed by similar associations of creditors. For approximately a century a consortium administered the taxes of Genoa. Florentine bankers on a still larger scale financed the combatants of the Hundred Years' War. Such operations caused trouble because of poor "liquidity." War loans were for long periods of time, but they came largely from the deposits of citizens who might desire their money at any time. A severe shock to the prestige of a banking firm might, therefore, wreak havoc with the banking company.

The most famous institution was the Bank of St. George in Genoa. It reached definite form by 1407 and lasted until 1816. It was managed by boards elected by approximately five hundred stockholders and was required to honor at all times its paper. In addition to managing certain state revenues and foreign possessions it carried on a general banking business, receiving deposits and investing funds without government interference.

Southern Commerce.—Constantinople because of its superb location enjoyed a fine trade from its foundation, a trade reaching from China to Spain and from Africa to beyond the Danube. In the tenth century it probably enjoyed a larger share of the world's trade than any city before or after. It imported foodstuffs and the varied manufactures of the East, such products as cotton, rugs, satins, velvets, damasks, muslins, calicoes, delicate glassware, the cross bow, and the windmill. Colored stones for mosaic work, textiles, and crucifixes made in Constantinople appeared in the export list. It developed a fine nautical code and improved or introduced methods of accounting, money, banking, and the Arabic notation. Merchants and financiers moved west, carrying their fortunes

and new methods with them. Their gold Byzant supplied the model for the sound money of the West, for gulden, ducats, and florins. Their business paper, notably the letter of credit and the bill of exchange, went from Italy to the north through the agency of market, fair, and port. Eventually all of Europe felt the Byzantine influence.

Moorish Spain traded with its neighbors, commerce with the Genoese beginning prior to 1050. Its chief exports were fine leather, textiles, and steel. The trade of Christian Spain was then small, even the fairs in the internal trade comparing unfavorably with western Europe. Barcelona in the northeast, however, began to develop, the union of Aragon and the county of Barcelona in 1137 promoting commerce. The name became Aragon, but the power was really in Barcelona. For centuries this territory, famous for its fine boats and its commercial policy, was the outstanding naval and commercial power of the western Mediterranean. An early navigation law forbade the carriage of domestic Aragonese merchandise by foreign boats if national ships were available. Catalan merchants resided in Alexandria, Cyprus, Constantinople, and Little Armenia. To Barcelona came shipping and traders from Marseilles, Genoa, Pisa, Palermo, and Venice and with them came dyes, silks, spices, sugar, and highly valued stones.

The most important commercial power of the southern Mediterranean, however, was an Italian city. Aided by its location on some islands near the mainland, the early connection with Constantinople, and the concessions obtained during the Crusades, Venice became the unquestioned commercial leader of southern Europe. Although she may not have regarded herself as the whole thing in Italian commerce, she unquestionably regarded herself as a quorum.

The Venetians, though leaving the other towns open, retained for themselves the easily defended coast towns of the East. In Constantinople their *podešta* ruled virtually as an independent sovereign. In southern Greece, in Euboea, in Crete, and in strategic locations they established naval stations and everywhere they developed well-protected colonies, the most famous being on the eastern Mediterranean and the Black Sea coasts. Venetian merchants, moreover, went far

into Russia and into Central Asia, bringing back the products to Venice.

The Germans who desired wares produced or obtained by the Venetians were compelled to make the dangerous trip over the Alpine passes, as the Brenner or Semmering, a journey from central Germany which required about two weeks. When the German merchant reached Venice, he was forced to stay at the Germany factory, was disarmed, and was placed under an inspector, who served as a broker and an interpreter, but also as a detective to see that no regulations were broken. Germans could carry to Venice only the products of their own country or those of northeastern Europe and they could trade only with the Venetians, not even among themselves. They were, moreover, compelled to sell out their whole stock in Venice, thus insuring low prices. To these exacting regulations the Germans submitted because in no other place could they obtain the desired eastern wares, including glass, fine textiles, paper, weapons, and other manufactured goods, in exchange for their coarse textiles, leather manufactures and horn, rosaries, twine, furs, and such metals as gold, silver, iron, copper, and tin. This total trade in the fifteenth century perhaps amounted to a million ducats.

In the trade with the countries to the west of Germany, Venice dropped the passive attitude displayed with the Germans for an active policy. In the thirteenth century her commerce with England attained importance, for raw wool was a highly desired article. At first the trade was by land across France, but soon it was transferred in large part to the sea. Shortly after 1300, moreover, the government began to regulate the trade, discouraging separate voyages and making provision for the "Flanders Galleys" which usually sailed at intervals of a year. The Venetian Senate voted a specified number of these galleys for the voyage and auctioned off to the merchants the privilege of freighting them. The galleys carried 180 oarsmen, a force of archers, and four young patricians each in addition to the merchants and the goods. The control of the fleet was vested in a captain holding his commission from the government and bound to carry out orders, which among other things specified the ports to be visited.

Among the ports normally touched were Syracuse, Naples, and the principal ports of Spain and Morocco, and Lisbon. The fleet usually divided in the English Channel, some galleys stopping at Southampton or London and others going on to Sluys, the port of Bruges, Middlesburg, and Antwerp. Bruges, where the wares of northern Europe handled by the Hansards and those of southern Europe handled by Venetians met, was the chief center of this trade.

Venice's most prosperous period was at the beginning of the fifteenth century. At that time she had a commercial fleet of about three thousand vessels which were protected by forty-five or more men of war, the entire shipping using about thirty-six thousand seamen. Even though her population was less than a fifth of a million, she also maintained an army of forty thousand men.

Although Venice was thus the most important of the Italian cities others, notably Genoa, Milan, and Florence, are worthy of mention. Genoa, on the western side of the peninsula opposite from Venice, had grown powerful during the course of the Crusades, and in 1284 had crushed Pisa, a trade rival. Although Genoa was less successful with Venice than she had been with Pisa, she did win some important naval victories. Less able than were the Venetians in governmental affairs and more entangled in European politics than were the Venetians, the Genoese wasted their strength in fruitless struggles, but at all times they held some share of the eastern trade and they aided in the development of joint stock companies, banking, and public finance. Milan also was an important city, but it exercised less influence than did Florence which showed a modern outlook in her policy relative to land tenure, industry, and commerce. Not, however, until Florence had overcome Pisa and Leghorn did she have a seaport of her own. Her large commercial houses then used in buying up raw materials and in selling finished products agents settled in commercial markets like Bruges or travelling all over the world. Her commerce was greatest in wool and in silk textiles. Manufactures and commerce, of course, stimulated banking and Florentine bankers exercised great influence both at home and abroad.

General Nature of Europe's Eastern Trade.—The products exchanged in the eastern trade generally flowed in one direction, except for slaves, which were sent both east and west. From the Orient came spices of various kinds, pepper, cinnamon, nutmegs, mace, ginger, and cloves, all highly prized, but too costly for most people; drugs such as aloes, balsm, rhubarb, borax, cubebs, cardamons, camphor, and various gums; sugar; such jewels as emeralds, rubies, sapphires, diamonds, lapis lazuli, and pearls; cotton, silk, camel cloth, linen, fine china and glass; the ivory of Africa; and dyestuffs and alum. Woad, a blue dye, madder, scarlet, and Brazil wood, red dyes, saffron, a yellow dye, and shellac, also used as a varnish, were of particular importance. Alum, coming chiefly from Asia Minor, was used "for fixing the color when wool or silk had been dyed in the piece."

Exports of commodities and of money, of course, paid for the imports. By the close of the Middle Ages Italian silk manufactures were exported to the East, but for most of the period the only textiles exported were the woolens and the common linens of such countries as England and Flanders. Most of the other exports to the East consisted of raw materials such as wool and hides, metals, such as gold and tin, and foodstuffs.

After the fall of Rome the eastern trade had continued, but in a decreased way. The monastery of Corby in northern France in 716 obtained pepper, cloves, and other spices, perhaps by way of Marseilles. Most of the commerce was handled by Syrians and Jews. About 1000, with the awakening of economic life in Europe, an awakening featured by the growth of the towns, the eastern trade began to increase. It was carried on chiefly by Italian towns such as Bari, Trani, Brindisi, Taranto, Amalfi, Genoa, and Venice, and became especially important after the Crusades had begun.

Three main routes were used in the trade, the central route from the head of the Persian Gulf to Bagdad and on to Antioch, Damascus, and Cairo as western termini long being the most important. The southern route, chiefly maritime, at first had to contend with the perils of the Indian Ocean and with the north winds of the Red Sea, but, in time, the sailors

learned to take advantage of the regular monsoon winds, and to start for the East from Berenice, reached by the Nile and caravan, thus avoiding the bad winds of the northern end of the Red Sea. This route accordingly increased in importance toward the close of the Middle Ages. The third route was entirely by land. It ran from India over the mountains to the River Oxus, meeting there a caravan route from China, and continued west to the neighborhood of Bokhara, where it branched, one fork going to the north of the Caspian Sea and one to Trebizond and Constantinople. The Mongols, or Tartars, on friendly terms with the Christians, kept this route open from about 1250 to 1450, but after that time it was blocked in part by the Turks.

The Hanseatic League.—Primitive peoples are of little importance in trade. Charlemagne, apparently as a precaution, had destroyed the old Saxon strongholds, and the free peasantry, a farming people especially interested in horses, lived in open villages along rivers or on open plains as their ancestors long had lived. Norse invasions, however, led to the fortification of villages. The increasing money economy, following the exploitation of silver about 960, promoted the growth of towns and of trade. About the same time, 962, the union of Germany and Italy seemed to increase trade. Germany had contact with the Orient not alone by way of Italy, but also by way of Constantinople, Russia, and Spain. From the East Germans drew spices and various luxury goods, and from Spain and Africa slaves in particular but also ivory, birds of bright plumage, skins of leopards and lions, and live monkeys.

Northern cities, more evenly matched than southern cities, united in the most remarkable organization of the Middle Ages, the Hanse or the Hanseatic League. Perhaps its beginnings were at Wisby in the island of Gotland and in London where German merchants held an important commercial position. In 1241 Lubeck and Hamburg definitely agreed to safeguard the connections of the Baltic and North Sea and fifteen years later the first known meeting of the maritime towns, including Lubeck, Hamburg, Lunenburg, Wisman, Rostock, and Straslund, occurred. From time to time other cities were added to the League, at the period of greatest

prosperity perhaps a hundred cities being included, cities which extended from Dinant in modern Belgium east to Krakau and Reval and as far into the interior as Gottingen in Germany. At the height of its prosperity the four divisions of the League were led by Lubeck, Cologne, Dantzic, and Brunswick. Although the organization lacked a visible executive, armies moved rapidly and unfaithful members suffered swift vengeance. Danish kings were defeated twice and League power over southern Scandinavia, northern Germany, and the Baltic was little questioned. Halberstadt lost four burgomasters by executions because they had disobeyed League regulations. The three chief sources of League wealth were the monopolies over the Russian commerce, the fisheries of the Sound, and the English trade. The cities sent their representatives to a yearly meeting where they discussed matters of mutual interest, decided upon a common policy, and raised the funds to carry out that policy. Their chief interest naturally lay in safeguarding commerce, reciprocal treatment being agreed upon by Hamburg and Lubeck as early as 1230. Piracy was, of course, proscribed, all cities by a decree of 1265 being compelled to contribute to its extirpation.¹⁴

The Hansards realized their chief objects,—control of commerce, protection from the attacks of feudal lords and pirates, negotiation of commercial treaties extending their privileges, and, in short, the monopoly of trade,—in northern Europe in the closing part of the Middle Ages. In Russia and Scandinavia (including Iceland) they established a complete monopoly, their success being due to the industrial backwardness of the people and the weakness of the governments. In western Europe they shared their trade with other peoples. At Bruges they met the Venetians and obtained many products of western Europe. Other voyages, nevertheless, took their merchants to the ports of France, Spain, and Portugal. Then, too, they were long influential in England, holding the "Steelyard" in London until near the close of Queen Elizabeth's

¹⁴ See Thatcher, O. J. and McNeal, E. H. *A Source Book for Medieval History* (Charles Scribner's Sons, New York, 1905) pp. 611, 612, for typical regulations.

reign and investing their surplus capital in the English tin mines.

The methods of trading employed by the League were much the same as those used by Venice in the East. The Hansards established "factories" in the sense of trading posts, not manufacturing establishments, factories which were really fortresses where the merchants would be safe from attack by natives. At Novgorod, Russia, for example, the group of trading buildings was enclosed, being guarded day and night by vicious watchdogs and by men. The factory allowed the close regulation of trade, which was one of the striking characteristics of the Middle Ages, and, moreover, furnished the opportunity to keep the merchants under close supervision.

The zenith of the League's prosperity came in the period from 1356 to 1377. Yet we must guard against the supposition that trade was important. Measured by our standards it was trifling. Only 430 ships entered Lubeck, the most important Hanseatic port, in 1368 and only 870 boats left it. In 1369, 178 merchants were interested in twelve boats leaving Reval, the average investment of each being approximately four hundred dollars. During the fifteenth century the number of boats entering Reval averaged about thirty-two yearly.

During the closing part of the fourteenth century inland towns grew less disposed to support a policy bent on keeping the Baltic open, internal disputes marred League efficiency, wars proved costly, and the herring seemed to desert the Scandinavian coasts and to go to Holland. Ivan the Great seized Novgorod in 1471 and Ivan the Terrible in 1570 massacred most of its inhabitants because of their negotiations with the Poles. Wisby, the mother station, consequently, declined in importance. Bergen, a key city in the Norwegian trade and a bulwark against North Sea pirates, restless under the League, threw off its yoke when the League's powers declined. With the discovery of the New World, furthermore, other powers became important, national governments began to rise, and the Reformation in Germany increased the power of the lay princes. The Thirty Years' War, 1618-1648, completed the ruin started in the late Middle Ages, and in 1669 the last general League assembly was held. Thereafter the

name of Hanse towns was used only by Lubeck, Hamburg, and Bremen, to designate, not union, but independence.

Commerce of Middle Europe.—The Frankish conquest of Frisia was an important event. The Frisians had thousands of sheep in their salt marshes and their wool enjoyed high repute. They acted as middlemen in the trade between the Rhine and Britain and between Gaul and the Germans. For three centuries after 450 the North Sea was virtually a Frisian lake. The Frisians had merchants in the Baltic and Scandinavian countries as well as in England and Germany. "Duurstede on an arm of the Rhine near later Utrecht" was the seat of this commercial activity. It was destroyed by the Northmen in the ninth century and its trade went to Cologne and other cities.

New commercial and industrial towns developed in the ninth century, and Flanders became famous for its fairs. Its cattle, textiles, and various products appeared in European markets, and its merchants traded throughout western Europe. Its location at the mouths of the Scheldt, the Meuse, and the Rhine and the crossing of important land routes aided its commerce. Its feudal rulers, furthermore, were fairly liberal, thus promoting commerce. In the fourteenth century Bruges was the most important market in northern Europe. In its markets Italian, Spanish, Portuguese, French, English, German, and Scandinavian merchants sold their wares and to its prosperity, according to a contemporary, thirty countries, Christian and Mohammedan, contributed. The common practice of diverting trade from one place to another and the silting up of its harbor caused the downfall of Bruges. In the fifteenth century, then, Antwerp forced itself to the top, a place which it held for about a century.

As early as the sixth century the Great and Little St. Bernard passes were used by the French, and the Pyrenees were crossed at two points. The old Roman highways and the lesser roads connected the towns, and Italian, Egyptian, Syrian, and Greek merchants crowded the southern towns and even journeyed far north in Gaul. Jewish merchants traded in wheat, oil, dates, wine, ivory, silk goods, and the various spices, much of the material being limited to the upper clergy

and the wealthy nobility. Yet, on the whole, commerce tended to grow more difficult as the roads became even worse and as the tolls multiplied.

Many writers think that Charlemagne led a grand revival in European commerce. His improvement of roads and bridges, nevertheless, was primarily for military purposes, and his law of 794 in regulation of prices during a period of economic depression was intended to relieve the poor, for he was indignant at profiteering. Charlemagne's empire drew the eastern luxuries through Byzantine and Moslem lands and brought in olive oil, nuts, linens, woolen goods, and white, red, and purple leather goods from Spain. The commercial prosperity of Charlemagne's reign did not disappear at once. In 838 Louis the Pious renewed the Channel fleets. The legislation concerning bridges prior to 862 was, moreover, commercial, not military, and not until about that time did the raids of the Northmen and the attacks of the Saracen corsairs prove especially formidable. Thereafter conditions seemed to grow worse, for metallic money became less plentiful, Syrian colonies disappeared, and towns went down, Marseilles becoming a grass-grown port and then a faint memory for a couple of centuries.

France before the Crusades made one eleventh-century economic connection of great importance. Her Norman subjects, traders as well as warriors, had conquered England in 1066. With William to London and the Channel ports went a crowd of Norman and Flemish merchants, some for land, others for money. French goods thus flowed into England. Normandy became the center of European admiration and envy. When Henry II of England married Eleanor of Aquitaine, the trade became still more important. From France to England went wine, chert millstones, and building stones; from England to France came wool, tin, iron, lead, and hides. Ireland's export trade in salted salmon, mastiff dogs, basket wares, and marten skins entered France by the way of Rouen. Fish products—herring being the most important—were staple products of all French Channel towns. Dieppe had a "breeding ground for fish," an industry owned by an abbot, and the salting of fish was the chief local industry of Rouen.

Commerce continued to grow during the twelfth century. In 1121 the hanse of Paris, soon dominating the Middle Seine, appeared. Other organizations of bargemen and merchants came from time to time, thus showing a development of commerce, and the annexations of Philip Augustus gave additional impetus to trade. St. Louis insisted on free trade in wine, grain, and comestibles. He increased markets and fairs and policed the roads; he made the peasant selling his own wine exempt from tolls; he ordered immediate restitution to any one who had been illegally deprived of products or money; he required land owners to protect travellers and to maintain the roads along their territory; he prohibited bailiffs from seizing laboring animals except for the public service; and he regulated the towns, especially in their finances. Increase in the royal power both in town and in fief promoted commerce, which also profited from peace, the king's coinage, the regulation of weights and measures, and the seizure in the thirteenth century of Languedoc. Marseilles, acquired by the French monarchy in 1257, having recovered its old glory, became the greatest port on the Mediterranean with factories along the African coast from Ceuta to Alexandria. The French monarchy, moreover, acquired Montpellier in 1349.

In the fourteenth century, in fact, France gave promise of dominating Europe in trade. Domestic commerce was active, French shipowners had journeyed down the western coast of Africa as far as Guinea where they had established trading posts, and both agriculture and manufactures were flourishing. But then came the Hundred Years' War, 1336-1453, especially damaging to France because it was fought on French soil. French and English armies and bands of freebooters ravaged the land, taxes grew, commerce dwindled, cities languished, and artisans emigrated.

When the Romans left England, trade of all kinds suffered a serious blow. Of the imports prior to the Norman Conquest Aelfric's Saxon *Dialogues* mention gems, ivory, gold, purple, silk, dyed stuffs, dyes, wine, oil, glass, tin, and sulphur. Furs, skins, weapons and iron may be added to the list. The chief exports were raw materials such as wool, tin, and lead, and also cattle, horses, and especially slaves. Bristol was the

center of the slave traffic, and such a devout woman as Gytha, wife of Earl Godwin, shipped gangs of young and pretty women to Denmark for sale.

Jews and foreign merchants at first came to England in greater numbers than English merchants went abroad. The Jews, in truth, in England as elsewhere, gave valuable aid to industry and commerce by supplying the necessary capital. As the country developed, however, welcome and then grudging acceptance gave way to mistreatment and finally to theoretical expulsion in 1290. Matthew of Westminster gives us this interesting item:

On the thirty-first of August the fierce multitude of the Jews, who in past times had been living boldly in different cities and strong castles were ordered to depart from England with their wives and children, and all their movable property by the Feast of All Saints, which was assigned them as a limit, which they were not to dare to transgress on pain of being hanged; and their number as was believed, amounted to sixteen thousand five hundred and eleven.¹⁵

The invasion and settlements of the Danes, the German settlements about 1000, the Norman Conquest, and the Crusades lessened the dependence upon the Jews and stimulated commerce. Henry of Huntington, writing about 1155, notes that England exported lead and tin, "fat" cattle, fish, meat, and wool to Germany, and somewhat similar products, of course, went to other countries. From the Germans came such products as silver and furs, the nobles and the rich clergy obtained fine woven cloths from abroad, eastern stuffs and spices entered the country after the Crusades, and some iron came from Spain and the Baltic countries, on the whole, the articles of import having a greater intrinsic value than the articles of export. This growing importance of commerce appears in the trading clauses of the Great Charter, 1215. One of these clauses assured to foreign merchants freedom of journeying and of trade and another ordered uniformity of weights and measures throughout the country. The Statute of Winchester, 1285, ordered bushes and underwood, but not great trees, cleared away for two hundred feet on each side of

¹⁵ Yonge, C. D., Translator *The Flowers of History* (Henry G. Bohm, London, 1853) Vol. II, p. 485

the highway, thus giving some protection from robbers to both foreign and native merchants.

From early times foreigners dominated the English trade. The Flemish or London Hanse was older than the Hanseatic League. Possibly the Flemish Hanse in its origin was the gild merchant of Bruges. Only members of the gild merchant could be members of the Hanse. All of the high municipal officers were required to be members of the Hanse. In the second half of the twelfth century the Flemish Hanse expanded into an organization for the virtual monopoly of the English trade, increasing from seventeen to fifty-six towns. Included in the list were Amiens, Ghent, Rheims, Saint Omer, and Ypres. The Hanse exported to England such products as armor, cloth, glass, and other manufactures and imported wool. It traded at the Champagne fairs, monopolized English trade to the extent of the seizure of the property of non-members, standardized goods, and guarded against fraud. The chief officer of the Hanse was named the "Count of the Hanse"; he was elected by the Bruges merchants. The second officer, designated as the "Standard Bearer," was named by Ypres. The Hanse court consisted of eight judges from Bruges, four from Ypres, and one or two from each of the remaining members. Even after the rise of the "Merchants of the Staple" the Flemish Hanse persisted, handling English imports but gradually relinquishing exports. In the fourteenth century political and social difficulties in the Hanse cities became common and in 1354 the Merchants of the Staple, claiming to date back to 1267 and officially recognized as early as 1313, organized to take over the functions of the Flemish Hanse.

The new organization early set up four "staples" or distributing points on the Continent, namely, Antwerp, Bruges, Calais, and Dordrecht. In England during the time of Edward I and Edward II, 1272-1327, some towns, known as the staple towns, were singled out and given the exclusive privilege of selling the staple articles of the district. The articles ordinarily so used were wool, woollens, and leather. The use of staples made easier than would otherwise have been the case the collection of customs duties and the regulation of quality, special inspection officers being appointed. Foreign towns,

among them Antwerp, Bruges, St. Omer, and Calais, as well as home towns, served as staples. By the organization effected in 1354 each of the dozen or so staple towns, whether in England or on the Continent, was to elect by the votes of its native and foreign merchants a "Mayor of the Staple." That individual was to maintain order and to enforce justice and also to act as a mediator or go-between for the English authorities and the foreign merchants. Calais, the continental staple after 1363, was recovered by the French in 1558. From town to town the staple was then moved; it had sunk into insignificance by the seventeenth century, giving way to the Merchant Adventurers who profited by England's rising cloth manufactures and the resulting change in the character of exports.

The Company of Merchant Adventurers, dating from 1407, dealt in manufactured goods, chiefly cloth. Although London was their chief station, the Merchant Adventurers had posts at Exeter and Newcastle; they were not restricted to any one point of distribution.¹⁶ Many of these merchants built up great fortunes and on one occasion, Sir William de la Pole, a rich Hull merchant, acting for a group of merchants, loaned Edward III £18,500, a stupendous sum for that period. Sir Richard Whittington also loaned large sums to Henry IV and Henry V.

The Hansards, nevertheless, had the Steelyard in London, a strong enclosure about four hundred feet deep and fronting about two hundred feet on the Thames and smaller stations at Boston, Lynn, and elsewhere. The Venetians made yearly trips to England. Foreign trade was thus largely outside of the hands of the native merchants. In the fifteenth century, for example, the Hansards or the League exported forty times the amount of cloth carried in English boats.¹⁷ Among the exports other than cloth sent out by the foreign merchants or the natives at the close of the period wool was the most important. The corn laws during part of this period encouraged

16 See Knight, M. M. *Economic History of Europe to the End of the Middle Ages*, pp. 209-211.

17 Yet if Professor Max Weber is right the total trade between England and the Hanseatic League at the highest peak was less than four thousand dollars a year, the typical fourteenth-century cargo of a League boat being worth only \$1250 or \$250 less than the average cargo of a Venetian boat. See his *General Economic History*, p. 207.

the export of grain, and most of western Europe also gladly purchased English tin and lead. From Portugal and Spain came iron and war horses; from France, wines; from the Flemish manufacturing towns, velvets, linens, and other fine cloth; from the Hansa merchants, fish, wax, timber, fur, and amber; and from Italy, silk, velvets, damasks, cottons, glass, and eastern spices and precious stones.

Commerce of Other European Regions.—Even in primitive times the inhabitants of Switzerland received such products as coral from the Mediterranean, yellow amber from the Baltic, and nephrite from the East. With the Roman conquest came Roman coins, Roman garments, and Roman luxuries. From the country to Rome went Alpine cows famous for their abundant milk, Alpine cheese already famous, and casks of wine. With the growth of towns commerce increased. The trade with Flanders, France, Germany, and Italy, in particular, seemed to thrive. Zurich and St. Gall sold linen and silk, Berne and Fribourg sold dyed cloths, and the pasture lands sold butter, cheese, hides, and wool. The western districts traded in cattle, hawks, horses, and iron. Geneva drew southern fruits and eastern spices. Handicaps, however, appeared in the nature of the country, in the prohibition of the trade in gold, in the restriction of the trade in silver, and in the disturbances and the feuds of the thirteenth and fourteenth centuries.

Commerce, similar to that in other early countries, developed rapidly in twelfth-century Scandinavia. Danish towns, invariably located upon the coast, increased. Towns walled for protection against pirates ended in "borg," and the merchants and craftsmen of such towns were called burghers. Some towns developed around monasteries, but others owed their origin to natural trading facilities, Copenhagen, for example, coming from a word meaning "Market Haven." It was founded in 1165 by Bishop Absalom of Lund, who constructed a castle in the harbor to ward off the piratical attacks on the merchants. Danish merchants also had settlements along the south coast of the Baltic, but after the founding of Lubeck in 1158 the Germans soon gained the commercial ascendancy.

Norway at times during the Middle Ages controlled most

of the western islands, including Iceland, Greenland, the Orkneys and Hebrides, the Shetland Islands, the Isle of Man, and even Ireland. Her people became excellent sailors and early carried on trade with Iceland, Greenland, Russia, and with the British Isles and France. Some of her kings even constructed artificial harbors and erected sea-marks and beacons in dangerous places. Bergen developed into the most important European fish market, and handled most of the commerce of Iceland and traded with England and the German cities. One writer referred to its prosperity in 1191,—its royal castle and relics, its monasteries for monks and nuns, its immense amount of dried fish, its “congregation of ships and peoples from all corners of the world, Iceland, Greenland, England, Germany, Denmark, Sweden, and Gothland,” and to its “great surplus of honey, lumber, good cloths, herring, and other wares.”

Adam of Bremen said of Sweden: “The flow of the streams and the lay of the land was conducive to all kinds of foreign commerce.” In the Viking period fish, furs, horses, slaves, and wool were included in the exports. Yet Sweden had little opportunity of development other than with Russia. By the eleventh century the Swedes had established themselves in Novogorod and by 1152 they had their own church there. They, moreover, enjoyed trading privileges in London as early as did their fellow Scandinavians. Wisby, in the island of Gotland, was the commercial center of the Baltic, and the great number of Arabic and English coins found there indicates considerable foreign commerce. The rise of the German merchants, notwithstanding, soon injured Swedish commerce.

Only a few luxuries, amber, a fossil resin used in ornaments, and wax, chiefly employed for candles in church services, were exported from the Baltic region. Most of the exports, in fact, were raw materials, fish being the most important of the foodstuffs because Europe was Roman Catholic and the consumption of fish was stimulated by church rules. Among the other foodstuffs exported were butter, honey, and salt meat. In exchange for these products western Europe sent to Scandinavia raw products and manufactures, among the articles

worthy of note being beer, cloth, metals, salt, wheat, and wine.

Because the Russians did not develop agriculture until near the beginning of the eleventh century their inroads on surrounding tribes resulted in the collection of thousands of slaves who were exported to Constantinople in large numbers. The discovery of Arab coins and of other relics indicates, too, that an Arabic-Russian trade of some importance existed between the seventh and the tenth centuries. Prosperity in the Dnieper region is indicated likewise by the transformation of fortified houseyards into trading posts and by the development of cities to which the beekeepers and the trappers brought their wax, honey, and furs. The first Varangians entered the country as armed merchants on their way to Constantinople or other southern markets or as merchants in the Dnieper cities or as mercenary soldiers. In time, nevertheless, they became rulers, and Oleg in 907 and in 912 and other rulers at later dates concluded commercial treaties with Constantinople. Oleg himself spent the winter in collecting tribute from his various provinces and the summer in disposing of his products. The boyars, or military class, received pay in tribute; hence, they, too, became traders. Successful merchants, in fact, were skilled fighters or commanders, for robbers were seeking everywhere the unwary. Some merchants traded with Bulgaria, Greece, and even with Syria and Spain. Russian boats were so numerous in the Black Sea that it was called the Russian Sea.

Russian trade in Constantinople was barter rather than cash sales. Such products as Russian honey, peltry, slaves, and wax were exchanged for fruits, jewelry, leather, spices, and textiles, notably linen and silk. Only the upper classes and the higher clergy could afford to buy such luxuries. Then, too, the invasion of the Tartars, who were a pastoral people, and the numerous wars discouraged trade. As time passed commerce, consequently, declined in relative importance, and agriculture gained. At the close of the Middle Ages, therefore, trade was of less relative importance than it had been in the eleventh century.

SELECTED REFERENCES

Coulton, G. G. *Social Life in Britain from the Conquest to the Reformation* (Cambridge, The University Press, 1918) Section XI.

Cutts, E. L. *Scenes and Characters of the Middle Ages* (London, Simpkin, Marshall, Hamilton, Kent, and Company, Ltd., 1926) Part VII, Chapters I-VI.

Day, Clive. *A History of Commerce* (New York, Longmans, Green and Company, 1924) Chapters V-XIV.

Heaton, Herbert. *Economic History of Europe* (New York, Harper and Brothers, 1935) Chapters VIII-XI.

Pirenne, Henri (F. D. Halsey Translation). *Medieval Cities* (Princeton, The Princeton University Press, 1925) Chapters III-V.

Selfridge, H. C. *The Romance of Commerce* (New York, Dodd, Mead and Company, 1923) Chapters VII and VIII.

Thompson, J. W. *An Economic and Social History of the Middle Ages* (New York, The Century Company, 1928) Chapters XXIII and XXVIII.

Zimmern, Helen. *The Hanse Towns* (London, T. Fisher Unwin, 1889) Part II, Chapters I-III.

PART III

THE EARLY MODERN PERIOD

CHAPTER XII.

NATIONAL CHARACTERISTICS AS VIEWED BY CONTEMPORARIES

General Comparisons.—One of the things of particular interest to most students is contemporary opinion of the various historical races. Although that opinion may be hasty and undigested, prejudiced either for or against a people, and rambling on the subjects noted, the purpose of this chapter is to reveal others as they were seen by contemporaries, chiefly people of another race. Two examples of contemporary opinion of the chief races will be cited. One of these comes from a celebrated ruler, Peter the Great of Russia. His characterization of several peoples was:

You may give to a Frenchman liberal pay: he never amasses money, and loves pleasure. The case nearly answers to the German; only he spends what he labours for in good living, not on the gay vanities of the Frenchman. To an Englishman more must be given: he will enjoy himself at any rate, should he even call into his aid his own credit. A Dutchman rarely eats enough to pacify nature; his sole object is economy; less, consequently, will serve him. An Italian is by nature inoculated with parsimony; a trifle, therefore, will do for him: almost out of nothing he will contrive to save; making no mystery of it, but acknowledging that he serves from home with no other view than to amass money to enable him to return with affluence, to the heaven of Europe, his own dear Italy.¹

The celebrated German dramatist, Kotzebue, in one of his letters thus summarizes French opinion of Europeans as it existed at the close of the eighteenth century:

. . . For my part, being a German, and only knowing the manners of nations from thick volumes in quarto, my curiosity is naturally excited and I read with pleasure the quintessence of the judgment and prejudice of Frenchmen respecting themselves and their neighbors. The following are examples:

¹ *The Annual Register*, 1809 (London, 1812) Vol. 51, p. 788.

"In religion, the German is unbelieving; the Englishman devout; the Frenchman zealous; the Italian ceremonious; the Spaniard a bigot.

"In keeping his word, the German is faithful; the Englishman safe, the Frenchman giddy; the Italian cunning; the Spaniard a cheat.

"In love, the German does not understand it; the Englishman loves a little here and there; the Frenchman everywhere; the Italian knows how one ought to love; the Spaniard loves truly.

"In external appearance, the German is tall; the Englishman well made; the Frenchman well looking; the Italian of the middle size; the Spaniard frightful.

"In dress, the German is shabby; the Englishman superb; the Frenchman changing; the Italian tatterdemalion; the Spaniard decent.

"In manners, the German is clownish; the Englishman barbarous; the Frenchman easy; the Italian polite; the Spaniard proud.

"In keeping a secret, the German forgets what he has been told; the Englishman conceals what he should divulge and divulges what he should conceal; the Frenchman blabs everything; the Italian does not utter a word; the Spaniard is mysterious.

"In vanity, the German boasts little; the Englishman despises all; the Frenchman praises everything; the Italian values little what is of little value; the Spaniard is indifferent to all.

"In eating and drinking, the German is a drunkard; the Englishman a lover of sweets; the Frenchman delicate; the Italian moderate; the Spaniard niggardly.

"In offending and doing good, the German does neither good nor bad; the Englishman does both without reason; the Italian is prompt in beneficence, but vindictive; the Spaniard indifferent in both respects.

"In speaking, the German speaks little and badly, but writes well; the Frenchman speaks and writes well; the Englishman speaks badly, but writes well; the Italian speaks well, writes much and well; the Spaniard speaks little, writes little, but well.

"In address, the German looks like a block-head; the Englishman resembles neither a fool nor a wise man. The Frenchman is airy; the Italian is prudent, but looks like a fool; the Spaniard is quite the reverse.

"In laws, the German laws are indifferent; the Englishman has bad laws, but observes them well; the Frenchman has good laws, but observes them badly; the Italians and Spaniards have good laws; the former observes them negligently, the latter rigidly.

"Servants are companions in Germany; slaves in England; masters in France; respectful in Italy; submissive in Spain.

"Diseases—Germans are particularly infested with fleas; the English with whitlows; the French with the small-pox; the Italians with the plague; and the Spaniards with wens.

"The women are housewives in Germany; queens in England; ladies in France; captives in Italy; slaves in Spain.

"In courage, the German resembles a bear; the Englishman a lion; the Frenchman an eagle; the Italian a fox; and the Spaniard an elephant.

"In the sciences, the German is a pedant; the Englishman a philosopher; the Frenchman has a smattering of everything; the Italian is a professor; and the Spaniard a profound thinker.

"Magnificence—In Germany the princes; in England the ships; in France the court; in Italy the churches; in Spain the armories; are magnificent.

"Husbands (make the conclusion) in Germany are masters; in England servants; in France companions; in Italy schoolboys; and in Spain tyrants."

I will readily grant you, my dear madam, that one-third of these singular characteristics is untrue, and sometimes absurd; but the other two-

thirds I could vouch to be true. With regard to us Germans, we have the least reason to complain of the painter; if he had but omitted the horrid libel that we do not understand how to love, and that among us husbands are masters, we might then be well satisfied with him.²

The English People as Viewed by Travellers.—One of the travellers, Paul Hentzer, gives the following interesting description of the English in 1598:

The English are serious, and, like the Germans, lovers of show; liking to be followed wherever they go by whole troops of servants who wear their masters arms in silver, fastened to their left arm; a ridicule they very deservedly lay under. They excel in dancing and music, for they are active and lively, though of a thicker make than the French. They cut their hair close on the middle of the head, letting it grow on either side. They are good sailors, and better pirates, cunning, treacherous, and thievish; above 300 are said to be hanged annually in London. Beheading with them is less infamous than hanging. They give the wall as the place of honor. Hawking is the general sport of the gentry. They are more polite in eating than the French, devouring less bread, but more meat, which they roast in perfection. They put a great deal of sugar in their drink. Their beds are covered with tapestry, even those of farmers. They are often molested with the scurvy, said to have first crept into England with the Norman conquest. Their houses are commonly of two stories, except in London, where they are of three and four, though but seldom of four; they are built of wood, those of the richer sort with bricks; their roofs are low, and where the owner has money, covered with lead.

They are powerful in the field, successful against their enemies; impatient of anything like slavery; vastly fond of great noises that fill the ear, such as the firing of cannon, drums, and the ringing of bells, so that it is common for a number of them, that have got a glass in their heads, to go up into some belfry, and ring the bells for hours together, for the sake of exercise. If they see a foreigner very well made or particularly handsome, they will say it is a pity he is not an Englishman.³

Baron Hollberg, a Dane, mingled condemnation and praise in a fairly impartial way:

The English are neither angels nor devils and yet this nation scarcely ever observes a medium in anything. . .

Religion, superstition, zeal, licentiousness, learning, ignorance, industry, sloth, vice, and virtue, are carried on to an extreme in this country; all are cultivated to their perfect maturity, and while, on the one hand, one cannot sufficiently praise some noble natures; on the other there are characters so base that no censure can reach them. There is no nation at once so idle and careless, and there is no nation at the same time so laborious. . .⁴

C. P. Moritz, who travelled through England in 1782, gave a

² *Ibid.*, 1804 (London, 1806) Vol. 46, pp. 765-767.

³ *Ibid.*, 1758 (London, 1783) Vol. I, B, p. 266. The editors of the paper denied the number of killings and the reputation for cunning and treachery.

⁴ *The Annual Register*, 1808 (London, 1810) Vol. 50, B. pp. 21, 22.

description of the Strand in London and also of the English love for liquor:

It is here not at all uncommon to see on doors in one continued succession, "*children educated here*," "*shoes mended here*," "*foreign spirituous liquors sold here*," and "*Funerals furnished here*" Of all these inscriptions, I am sorry to observe, that "*Dealer in foreign spirituous liquors*" is by far the most frequent. And indeed it is allowed by the English themselves, that the propensity of the common people to the drinking of brandy or gin is carried to a great excess. In the late riots (anti-Popery riots of 1780) . . . more people have been found dead near empty brandy-casks in the streets, than were killed by the musket balls of regiments, that were called in. . .⁵

D. Archenholz's *Picture of England* describes the ease with which people could go into debt and the resulting congestion of prisons. He likewise describes two prisons, almost inns, the King's Bench and the Fleet which he regarded as peculiar to England because of the freedom of intercourse within the walls. Of the resulting evils in the King's Bench he writes:

The unbecoming assemblage of the two sexes, is one of the greatest abuses of this prison. I have already said, that according to the law of the country, the husband is obliged to answer for the debts of his wife, so that it is he only that is arrested. One does not therefore meet with married women here, but there are plenty of widows and unmarried ladies. These last, who are all priestesses of Venus abound in great beauty and sometimes exceed an hundred. One of these must be very disagreeable, if she does not find on her arrival, several who will offer to share their apartments with her, and even their beds. . .⁶

Mirza Abu Taleb Khan, a Persian traveller, emphasizes especially the defects of the English upper classes:

The first and greatest defect I observed in the English is their want of faith in religion, and great inclination to philosophy (atheism). . .

The second defect, most conspicuous in the English character, is pride or insolence. . .

Their third defect is a passion for acquiring money, and their attachment to worldly affairs. . .

The fourth of their frailties is a desire of ease, and a dislike to exertion. . .

The fifth defect is nearly allied to the former, and is termed irritability of temper. . .

The sixth defect of the English is their throwing away their time in sleeping, eating, and dressing. . . there remain just six hours out of the twenty-four for visiting and business. . .

⁵ Matheson, P. E. *Travels of Carl Philipp Moritz in England in 1782* (Humphry Milford, London, 1924) pp. 30, 31.

⁶ *The Annual Register*, 1790 (London, 1793) Vol. XXXII, B p. 32.

Their seventh defect is a luxurious manner of living, by which their wants are increased a hundred-fold. . . How unintelligible to them is the verse of one of their own poets:

"Man wants but little here below,
Nor wants that little long".

It is certain, that luxurious living generates many disorders, and is productive of various other bad consequences.⁷

The French People of the Last Half of the Eighteenth Century.—David Garrick, the famous English playwright, was, in general, a severe critic of French acting, customs, hotels, officials, and people. Concerning Boulogne he wrote:

All the French writers who have written about England complain of ye brutality of *our* common People, but let 'em say or write what they will, I never saw so much Dirt, Beggary, imposition and Impertinence as I did at Boul.⁸

His entry for Tuesday, May 28, reads in part:

N B The women in general tho very ugly and most disagreeably painted are in general very easy, well shap'd & genteel—they tread much better than our Ladies & their Legs from their shape & neatness are more worth seeing than anything else about them.⁹

A few days later, May 31, he again commented on the absorbing topic of the women: "In our walk we saw two *very pretty french women* unpainted, wch was a greater curiosity than any I have yet seen at Paris."¹⁰

That English fashions and manners had some effect in France seems evident from the letter of a French noble to an English lady of quality. The letter, dated St. Cloud, October 2, follows:

We are all metamorphosed into English; a strange and sudden revolution has happened in our dress, equipages, furniture, kitchens and diversions. . . Our *petitmaitres*, who formerly were dressed, painted, and perfumed like dolls, at ten o'clock before noon, ride after breakfast in the Cours la Reine, the Elysian fields, and all the environs of Paris, in a plain shirt and frock like your jockies. Our delicate ladies, who never ventured to stir out in the morning, run all over Paris, and in the public walks, in the genteel and loose dress of milkmaids. Our carriages are neat, plain, and

⁷ See Stewart, Charles (Translator). *The Travels of Mirza Abu Taleb Khan in Asia, Africa, and Europe, during the years 1799, 1800, 1801, 1802, and 1803; written by himself in the Persian Language*, Chapters 19 and 20.

⁸ Alexander, R. C. *The Diary of David Garrick, Being a record of his memorable trip to Paris in 1751* (Oxford University Press, New York, 1928) p. 3.

⁹ *Ibid.*, p. 9.

¹⁰ *Ibid.*, p. 15.

convenient. Horse-races are frequent on the Isle of France: our stables are full of English hunters and grooms; and our whips, saddles, and boots, manufactured by your countrymen, who have reduced us to beggary. We have substituted paper to the tapestries of the Gobelins, and introduced in our kitchens roast beef and pudding, in lieu of our soups, ragouts and fricasses. We hunt, swear, drink toasts, and determine all disputes by wagers, like your nobility and gentry. . . . Our new Vauxhall is the rendezvous of the most celebrated beauties and courtesans. . . . In fine, we want nothing but the immense fortunes of your gambling lords, and arrogant nabobs, to equal them in profusion, immorality and debauchery.¹¹

In one of Sherlock's *Letters* we have an interesting picture of French women, one which makes us doubt the sincerity of the author's emphatic, "The English women are the best wives under heaven—and shame be on the men who make them bad husbands":

When a French lady comes into a room, the first thing that strikes you is that she walks better, holds herself better, has her head and feet better dressed, her cloaths better fancied, and better put on than any woman you have ever seen

When she talks, she is the art of pleasing personified. Her eyes, her lips, her words, her gestures, are all prepossessing. . . .

Her eyes sparkle with spirit; the most delightful sallies flash from her fancy. . . .

Her vivacity may sometimes approach to folly; but perhaps it is not in her moments of folly she is least interesting and agreeable. . . . There is a particular idea in which no woman in the world can compare with a Frenchwoman; it is in the power of intellectual irritation. She will draw wit out of a fool. She strikes with such address the cords of self-love, that she gives unexpected vigour and agility to fancy; and electrifies a body that appears non-electric.¹²

Although Mirza Abu Taleb Khan, the Persian traveller, praised the French men as "extremely courteous, affable, and flattering," as "better looking than the English," and as wearing better fitting and more colorful clothing than the English, his comments on the French women were critical:

The French women are tall and more corpulent than the English, but bear no comparison with respect to beauty. They want the simplicity, modesty, and graceful motions of the English damsels. Their fashion of dressing their hair was to me very disgusting, as it resembled the mode practised by the common dancing-girls in India; that is, by dividing the hair into ringlets, two of which hung on the cheeks in an affected careless manner. They were also painted to an excessive degree, were very forward, and great talkers. The waists of their gowns were so short and full bodied, that the women appeared hump-backed, whilst the drapery in front was so

¹¹ *The Annual Register* 1769 (London, 1770) Vol. XII, B pp. 212, 213

¹² *Ibid.*, 1781 (London, 1782) Vol. XXIV, B, pp. 21, 32.

scanty as barely to conceal half their bosoms. Although I am by nature amorous and easily affected at the sight of beauty, and visited every public place in Paris, I never met with a French woman who interested me.¹³

Foreign Opinion of Germans.—Travellers in Germany often spoke rather unflatteringly of German institutions and characteristics. Burney condemned the inns and roads and criticized the women, as "miserably ugly, not, perhaps so much in feature, as from dress, and a total neglect of complexion." "They entirely hide their hair," he said, "by a kind of skull cap, usually made of tawdry linen or cotton; they are hardly ever seen with shoes and stockings, though the men are furnished with both, such as they are."¹⁴ Yet Burney revealed prejudice:

I could wish to speak of these people with candour and temper, in despite of the bile which every stranger, travelling among them, must feel at work within him but, as I neither mean to abuse or flatter them I must say, that the numberless beggars, clamorously importunate, though often young, fat, robust, and fit for any labour; the embarrassments of perpetual change and loss of money; the extortion, sullenness and insolence of postmasters and postillions, are intolerably vexatious.¹⁵

The Vienna sports were attended normally by two or three thousand people. The following quotation from Burney shows their general nature:

This day, by imperial license, in the great amphitheatre, at five o'clock, will begin the following diversions:

1st. A wild Hungarian ox, in full size (that is, with fire under his tail and crackers fastened to his ears and horns, and to other parts of his body) will be set upon by dogs.

2nd. A wild boar will, in the same manner, be baited by dogs.

3rd. A great bear will, immediately after, be torn by dogs.

4th. A wolf will be hunted by dogs of the fleetest kind.

5th. A very furious and enraged wild bull from Hungary, will be attacked by fierce and hungry dogs.

6th. A fresh bear will be attacked by hounds.

7th. Will appear a fierce, wild boar just caught, which will now be baited for the first time, by dogs defended with iron armour.

8th. A beautiful African tyger.

9th. This will be changed for a bear.

10th. A fresh and fierce Hungarian ox.

11th. And lastly, a furious and hungry bear, which has had no food for eight days, will attack a young wild bull, and eat him alive upon the spot;

13 *Ibid.*, 1810 (London, 1825) Vol. 52, pp. 740-757 for copious extracts from the Persian.

14 *Ibid.*, 1773 (London, 1784) Vol. XVI, B. p. 178.

15 *Ibid.*, Vol. XVI, B. p. 178.

and if he is unable to complete the business a wolf will be ready to help him.¹⁶

The following sprightly but grossly exaggerated account from the letters of Lady W. M. W. reveals Vienna dress customs which found their counterpart in many other European countries:

... They build certain fabrics of gauze on their heads, about a yard high, consisting of three or four stories fortified with numberless yards of heavy ribbon. . . This machine they cover with their own hair, which they mix with a great deal of false it being a particular beauty, to have their heads too large to go into a moderate tub. Their hair is prodigiously powdered to conceal the mixture, and set out with three or four rows of bodkins, (wonderfully large, that stick out two or three inches from their hair) made of diamonds, pearls, red, green, and yellow stones, that it certainly requires as much art and experience to carry the load upright, as to dance upon May-day with the garland. Their whale-bone petticoats outdo ours by several yards circumference, and cover four acres of ground. . .¹⁷

Some Italian and Spanish Characteristics.—In Italy, as elsewhere, the native writers sought to defend their countrymen from the charges frequently made by foreigners. Joseph Baretti referred to their love for dancing, their sympathy, and their hospitality. With regard to the last point he said:

A *stranger* is no very honourable appellation in England. In some parts of Spain, and still more in Portugal, it is opprobrious; but in some parts of Italy, a *stranger* means a *fine fellow*; and in some others a *wise man*. I mean always amongst the common people. . .¹⁸

Baretti, moreover, palliates somewhat the sharp Italian tempers:

However, though the common people of Italy be thus humble, courteous, peaceable, cheerful, hospitable, compassionate, and religious, they have on the other hand, such quick feelings, that even a disrespectful word or glance from an equal will suddenly kindle a good number of them, and make them fall upon one another with their knives. . .¹⁹

These poor people, however, often suffered the severest penalties for their suspected crimes. An Italian author, who did not want his identity made known, wrote:

¹⁶ *Ibid.*, Vol. XVI, B, p. 177

¹⁷ *Ibid.*, 1763 (London, 1764) Vol. VI, B, p. 292.

¹⁸ *Ibid.*, 1768 (London, 1780) Vol. XI, B, p. 254

¹⁹ *Ibid.*, Vol. XI, B, p. 256

Surely, the groans of the weak, sacrificed to the cruel ignorance and indolence of the powerful; the barbarous torments lavished, and multiplied with useless severity, for crimes either not proved, or in their nature impossible; the filth, and horrors of a prison, increased by the most cruel tormentor of the miserable uncertainty, ought to have aroused the attention of those whose business is to direct the opinions of mankind.²⁰

The amusements, appearance, general characteristics, and subordination of the women, at least in the Two Sicilies, appear in this extract from the pen of Henry Swinburne:

... It (the Tarantella dance) seems the delight of their soul, a constant holiday diversion of the young women, who are in general, far from handsome, although they have fine eyes and striking features. Their hands and feet are clumsy, their shapes neglected, their necks flabby, and their skins discolored by living so much in the sun without bonnets. Amongst them we may find almost every mode of hairdressing seen on the Greek and Roman coins.

The women are always fighting and scolding... I was shewn a woman here, who, during the life of her first husband, was a pattern of modesty and evenness of temper to the whole parish; but upon contracting a second marriage, surprised and scandalized the neighborhood with her perpetual riots and obstreperousness. On being reprimanded for her behavior by the curate, she very frankly acknowledged that her former husband understood the management of a wife, and used to check her intemperate bursts of passion by timely correction; but that her present help-mate was too mild, to apply the proper chastisement which every wife requires more or less. Men seldom interfere in feminine brawls; and if they do, generally content themselves with abusing, threatening, or shaking a cudgel or pitchfork at their antagonist, till the crowd comes in to part them. . .²¹

Concerning Italian excesses at carnivals, R. Brookes writes:

... Their famous carnival begins on New-year's-day, and continues until Ash-Wednesday; all which time is employed in sports and diversions. Then there is scarce any distinction between vice and virtue, for libertinism reigns through the city, and thousands of foreigners frequent it from all parts of Europe. They all appear in masks, which no one ventures to take off, and in this disguise they imitate the fury of the ancient Bacchanals; and the nearer Ash-Wednesday approaches the more mad they are. . . Whatever degree of licentiousness may prevail among the Venetians, jealousy, poison, and the stiletto have been long vanished from their gallantry. The common people of Venice display some qualities very rarely to be found in that sphere of life, being remarkably sober, obliging to strangers, and gentle in their intercourse with each other. The Venetians in general, are tall and well made: they have a ruddy brown color, with dark eyes. The women are of a fine style of countenance, with expressive features, and a skin of a rich carnation.²²

²⁰ *Ibid.*, 1767 (London, 1767) Vol. X, B, p. 317.

²¹ *Ibid.*, 1782 (London, 1783) Vol. XXV, B, p. 12.

²² *The General Gazetteer; or Compendious Dictionary* (London, 1795) Article on Venice.

Throughout most of Spain and Portugal agricultural manners were crude. A traveller named Dillon draws some interesting parallels between the Biscayners and the Irish and pictures the agricultural manners and characteristics of the Biscayners:

The manners of the Biscayners, and the ancient Irish, are so similar on many occasions, as to encourage the notion of the Irish being descended from them. Both men and women are extremely fond of pilgrimages, repairing from great distances to the churches of their patrons or tutelary saints, singing and dancing, till they almost drop down with fatigue. The Irish do the same at their *patrons*. The *Guzanes* of Biscay, and the *Bou lamkeighs* of Ireland, are nearly alike: at all these assemblies, they knock out one another's brains, on the most trivial provocation, without malice or rancour, and without using a knife or a dagger. In both countries the common people are passionate, easily provoked if their family is slighted or their descent called in question. The *Chacoli* of Biscay, or the *Shebeen* of Ireland, makes them equally frantic. In Ireland the poor eat out of one dish with their fingers, and sit in their smoaky cabbins without chimneys, as well as the Biscayners. The brogue is also the shoe of Biscay; the women tie a kerchief round their heads, wear red petticoats, go barefoot, in all which they resemble the Biscayners, and with them have an equal good opinion of their ancient descent: the poor Biscayner, though haughty is laborious and active, an example worthy to be imitated by the Irish.²³

Northern Characteristics as Viewed by Travellers.—Concerning the sumptuary laws of Sweden and the restriction "within the narrowest limits of every kind of foreign superfluity" one writer declares:

A chancellor of state, who had neglected to have a velvet border stript off a cloak, which he had worn for many years, was summoned before the tribunal, whose province it is to put the edict against luxury in force, and received a severe reprimand from those grave judges for the misdemeanor. A lady also of the first quality, was obliged to appear before the same tribunal, and underwent an equal censure for drinking a dish of chocolate in her box at the play house.²⁴

Joseph Acerbi, an Italian traveller who made a tour through Sweden, Finland, and Lapland in 1798 and 1799, makes many interesting comments on the people. He regarded the Swedish ladies as "very handsome," but lacking in "variety" and "interest," and insisted that "their predominant passion is a desire of public notice and distinction" and that they devoted most of their time to "dress" but received little attention from

²³ *The Annual Register*, 1780 (London, 1781) Vol. XXIII, B, p. 28

²⁴ *Ibid.*, 1767 (London, 1779) Vol. X, A, p. 8.

the men. Dinner parties he labelled as "expensive arrangements of show and formality." With regard to the country villas of the gentry Acerbi commented:

These villas are for the most part pleasantly situated, and embellished with works of art, which second and improve the efforts of nature. You there find hothouses, in which they raise peaches, pineapples, grapes, and other fruit. All kinds of wine, liquors, and other delicacies, are lavished at the table of a Swedish gentleman, or rich manufacturer, or merchant in the country. The ceremonies and stiffness that prevail at town entertainments are as much as possible laid aside. . .²⁵

Mary Wollstonecraft's letters relative to Norway indicate that the people had a considerable amount of power, despite the nominal supremacy of Denmark, and lived a fairly comfortable life:

There are only two counts in the whole country, who have estates and exact some feudal observances from their tenantry. All the rest of the country is divided into small farms, which belong to the cultivator. It is true some few, appertaining to the church, are let. . .

.....
The distribution of landed property into small farms, produces a degree of equality which I have seldom seen elsewhere; and the rich being all merchants who are obliged to divide their personal fortune amongst their children the boys always receiving twice as much as the girls, property has not a chance of accumulating till overgrown wealth destroys the balance of liberty.

.....
Near most of the towns are commons, on which the cows of all the inhabitants, indiscriminately are allowed to graze. The poor, to whom a cow is necessary, are almost supported by it. Besides, to render living more easy they all go out to fish in their own boats; and fish is their principal food.

The lower class of people in the towns are in general sailors; and the industrious have usually little ventures of their own that serve to render the winter comfortable.²⁶

East Europeans As Seen by Travellers.—General Manstein in his *Memoirs of Russia* describes conditions, particularly the lack of taste in manufactured goods and finery, during the reign of the Empress Anne, about 1739, at a marriage between her niece, Anne of Mecklenburgh, and Prince Anthony Ulrick of Brunswick:

... The richest coat would be sometimes worn together with the vilest

²⁵ *Ibid.*, 1802 (London, 1803) Vol. 44, p. 877.

²⁶ *Ibid.*, 1796 (London, 1800) Vol. XXXVIII, B, pp. 347-349.

uncombed wig; or you might see a beautiful piece of stuff spoiled by some botcher of a taylor; or if there was nothing amiss in the dress the equipage would be deficient. A man richly dressed would come to court in a miserable coach, drawn by the wretchedest hacks. The same want of taste reigned in the furniture and neatness of their houses. On one side, you might see gold and silver plate in heaps, on the other, a shocking distress.

The dress of the ladies corresponded with that of the men; for one well-dressed woman, you might see ten frightfully disfigured; yet is the fair sex in Russia generally handsome; that is to say, they have good faces enough, but very few have fine shapes.

This incongruity of Russian finery and show was almost universal, there were few houses, indeed, especially in the first years of the reform, where everything was of a piece. Little by little others imitated the example of those who had taste. . .²⁷

Living conditions in Poland, as in other eastern countries, were well-nigh intolerable. Peter Mundy, an old traveller, declared: "For the common sort of people, they are . . . like slaves or beasts, allowed no more than will serve to keep them alive, and in such case as they may be able to labour again."²⁸ Hauteville described the seventeenth-century Polish villages as follows:

The furniture of their houses consists of some earthen or wooden dishes and a bed, which they make of chaff and feather, with a sort of coverlet over it. Their stoves have no chimney to let out the smoke, so that their huts are always full of a thick smoke, which has no other passage but a small window about four foot from the ground. . .²⁹

With regard to the inns of Poland and the territory east of the Baltic Hauteville wrote:

There are no inns in Poland where one may lodge conveniently and be accommodated with a bed. The only houses of entertainment are places built of wood . . . where travellers are obliged to lodge with the horses, cows, and hogs, in a long stable made of boards, ill-joined and thatched with straw. . .³⁰

Coxe, about a century after Hauteville's travels, gives similar testimony concerning the economic backwardness of the country:

...In these assemblages of huts the only places of reception for travellers were hovels belonging to Jews, totally destitute of furniture and every

²⁷ *Ibid.*, 1770 (London, 1779) Vol. XIII, B, pp. 113, 114

²⁸ See Mornill, W. R., *Poland* (T. Fisher Unwin, London, 1900) p. 340

²⁹ *Ibid.*, p. 342

³⁰ *Ibid.*, pp. 342, 343.

species of accommodation. We could seldom procure any other room but that in which the family lived; in the article of provision, eggs and milk were greatest luxuries, and could not always be obtained; our only bed was straw thrown upon the ground and we thought ourselves happy when we could procure it clean . . . The natives were poorer, humbler, and more miserable than any people we had yet observed . . . The road bore as few marks of industry as the country which it intersects; in other places it was scarcely passable; and in the marshy ground, where some labor was absolutely necessary to make it support the carriages, it was raised with sticks and boughs of trees laid crossways. After a tedious journey we at length approached Warsaw; but the roads being neither more passable, nor the country better cultivated, and the suburbs, chiefly consisting of wooden hovels, which compose the villages, we had no suspicion of being near the capital of Poland till we arrived at its gates.³¹

The following paragraphs from Connor give a description of customs during the late seventeenth and early eighteenth centuries:

Their present fashion is a vest that reaches down to the middle of their legs with a long robe, not unlike our morning gowns, lined with fur and tied about their waists with a sash; little boots with iron heels on their legs and furred caps upon their heads, with a sabre or cutlass girt about their loins. When they appear on horseback, which is one of their chief delights, they wear, besides all that has been mentioned, a short cloak, that hangs over their shoulders, much like an Irish mantle, which is most commonly furred within and without.

The better, that is the richer sort, make use of the furs of sable, which are brought from Muscovy, when the others content themselves with the skins of tigers, leopards, panthers, and a kind of grey furs. Some of the finest of these furs cost above a thousand crowns, but they are worn only at diets, and descend from father to son.

Some few of the Poles imitate the French fashion, and wear linen, lace points, perukes, and swords. The ordinary sort of gentry and even some of the great men, put sifted chaff into their boots, which serves them instead of socks. The women formerly had only garlands on their heads, composed of gold, gems, flowers, silk, and the like; but now they wear silk caps lined with fur, like the men. . . Both women and men are extravagant to an infinite degree, in so much that some among them will have fifty suits of clothes at once, all as rich as possible; but what shows their prodigality yet more is, that they will have their servants go as well-dressed as themselves. . .

Both men and women are always attended with a great number of servants of both sexes, the women to wait on the women, and the men on the men.³²

The Montenegrins were subdued neither by Venice nor by Turkey. They lived in a mountain fastness and traded with the Venetians, who guarded the only passage up the moun-

³¹ See *Ibid.*, pp. 341, 342.

³² See *Ibid.*, pp. 352, 353.

tain by a fort and thus secured protection for themselves against hostile invasions. A traveller, Eyles Irwin, thus comments:

Hence the inhabitants of the valley live secure; and those of the mountains are constrained to bring down the produce of their region, to barter, for what necessities they may stand in need of. Beef, mutton, poultry, game, eggs, and garden stuff, are exchanged by them for linen, woolens, beads, gunpowder, etc. All their meat is excellent in its kind, and very cheap. Sunday is their market-day, when the road is seen crowded with men and women, who are laden with eatables, or drive down their cattle for sale. The women only are allowed to enter the gate, which opens to the pass. While these are bartering their wares in the city, the men assemble without the walls, to divert themselves in drinking or smoking; coursing round the plain, wrestling or hurling the quoft, as inclination leads them. There were two field pieces, loaded with grape, on the draw-bridge, that were pointed on this tumultuous assembly. . . .³³

The travellers and a Venetian officer went out to visit the men. Irwin points out the life and death power held by the men over the women and gives examples of honor executions. With regard to the women he says:

On our return to the fort, we met the females of this tribe, who either from hard labor—which from their subserviency to their husbands falls to their share—or from other causes, are uncommonly hideous and disagreeable. Their lot, indeed, appears an hard one. Even gallantry, which respects the sex in other places, is reversed here; and the wife salutes her husband by kissing his hand; of which I was an eye-witness.³⁴

SELECTED REFERENCES

- Cheyney, E. P. *Readings in English History* (Boston, Ginn and Company, 1922) Chapters XIII and XIV.
- Firth, C. H. *Stuart Tracts, 1603-1693* (Westminster, Archibald Constable and Company, 1903) Pages 2-82 and 301-402.
- Garrick, David. *The Diary of David Garrick, Being a record of his memorable trip to Paris in 1751* (New York, The Oxford University Press, 1928).
- Landucci, Luca (Alice Jarvis Translation) *A Florentine Diary* (London, J. M. Dent and Sons, Ltd., 1927) Pages 161-299.
- Pollard, A. F. *Tudor Tracts, 1532-1588* (Westminster, Archibald Constable and Company, Ltd., 1903) Pages 333-502.
- Robinson, J. H. *Readings in European History* (Boston, Ginn and Company, 1906) Vol. II, Chapters XXXI-XXXIV.
- University of Pennsylvania. *Translations and Reprints from the Original Sources of European History* (Philadelphia, University of Pennsylvania, History Department, 1910) Vol. I, No. 1, also Vol. VI, No. 1.
- Voltaire, Francois M. (M. P. Pollack Translation). *The Age of Louis XIV* (London, J. M. Dent and Sons, Ltd., 1926) Chapters XXIV-XXX.

³³ *The Annual Register, 1787* (London, 1790) Vol. XXX, B, pp. 11, 12.

³⁴ *Ibid.*, Vol. XXX, B, p. 12.

CHAPTER XIII.

GENERAL RELIGIOUS AND SOCIAL CONDITIONS

Declining Influence of the Church.—Even when the Church was increasing in power, the seeds of division were being sown and heretics were being exterminated. The most serious of these early controversies was settled at Nicea in 325, when the imperial authority turned the scale against Arianism and established the doctrine of Christ's divinity. Another cause of discord was the Eucharist. Radbertus, vehemently opposed, about 831, taught that the bread and the wine of the Eucharist, though the sensible qualities remained the same, were "effectually changed into the flesh and blood of Christ." In 1215, the Fourth Lateran Council insisted upon this doctrine, transubstantiation, as an article of faith, and two years later the Church withdrew the wine from the laity. The Albigenses and the Waldensians, Wyclif and Hus likewise threatened the unity of the Church.

Perhaps even more important than these early schisms as weakening factors were the long-continued conflicts with secular rulers. Gregory VII and Henry IV fought frantically over the question of investiture, and many German emperors frittered away their resources in Italy. Boniface VIII, by forbidding princes in 1296 from levying taxes on the clergy without papal permission, also provoked struggles, especially in England with Edward I and in France with Philip IV. Philip secured the election of a French pope who moved the papal capital to Avignon, France. This so-called Babylonian captivity, 1309-1377, was another blow to papal prestige. Nor did the year 1377 mark a change for the better. In that year Pope Gregory, on a visit to Rome, died, and the French prelates, fearing the Roman populace, selected an Italian as Urban

VI. A few months later, again in France, they attempted to nullify the election and chose Clement VII, who returned to Avignon. France followed Clement, but England and Germany obeyed Urban. Although at the Council of Pisa in 1409 the two popes were declared deposed and a third pope was elected, the only result was three popes. In 1414, luckily, at the Council of Constance, one pope was persuaded to resign, two were deposed, and unity, but not the early prestige, was regained under Martin V. At the Council of Basel in 1431 a conflict developed between the pope and the council. The pope, compelled to yield temporarily, nullified the good reforms of the council by refusing to recognize and to confirm its decrees. Some of the popes, moreover, sought to gain their objects through the use of the craft and intrigue which were then prevalent in Italian politics.

Martin Luther and the Protestant Reformation.—Meanwhile criticisms of the Church were coming thick and fast. Wyclif had pictured the evil state of the clergy, their pride, avarice, and arrogance. His followers had drawn a contrast of the life led by the pope and the life led by Christ. Sebastian Brant, about 1494, in *The Ship of Fools*, condemned the Church for making unsuitable persons priests.¹ Erasmus in his *The Praise of Folly* held up to ridicule ghost stories, tales of prodigies and miracles, the adoration of saints, the doctrine of indulgences, petitioning of saints, scholastic disputations, and the confidence of the monks in mere ceremonies and externals.

Yet men like Erasmus, and John Colet and Sir Thomas More, the Oxford Reformers, tried to reform the Church from within. Others, like Martin Luther, 1483-1546, broke away from the Church. Unlike Erasmus, who appealed to scholars, Luther spoke direct to the people. Intended for the law, but afflicted with a strong sense of sin, Luther became a monk. Because of good scholarship and effective preaching he received an appointment as professor of theology at the University of Wittenberg. At the age of thirty-four he began the epoch-making struggle against Rome.

The immediate cause of that strife was the doctrine of in-

¹ See Robinson, J. H. *Readings in European History* (Ginn and Company, Boston, 1906) Vol. II, pp. 38, 39.

dulgence. The Church taught that a sinner who was truly penitent and who had atoned for his sins as much as was humanly possible might have the punishment in purgatory remitted for the performance of some pious act or the contribution of money for some worthy purpose. By the ignorant and the unscrupulous, however, that doctrine was perverted into something like this: "As soon as the money rattles in the box, the soul springs out of purgatory." Tetzel, preying upon this ignorance, aroused Luther, who, on an October Sunday in 1517, as a challenge to debate, nailed ninety-five theses or statements to the door of Wittenberg Church.

These criticisms gained a world hearing, for they were rapidly multiplied by the printing press. Luther was amazed at this publicity, but in their defense he dedicated a pamphlet to Pope Leo X. How far Luther then was from a denial of the supremacy of the pope appears in this sentence: "Save or slay, call or recall, approve or disapprove, as it shall best please you, I shall acknowledge your voice as the voice of Christ." The papal legate severely condemned Tetzel for his methods of selling indulgences, and the abuses stopped. Luther, however, went from one position to another, in 1519 approving the Hussites and a little later denying the pope and church councils and submitting therefor the Bible as the only rule of belief and practice. This substitution meant, of course, Luther's own understanding of the Bible. Other people might have a different interpretation. And so the revolt came to stand for the liberty of private judgment.

Pope Leo attempted to reclaim Luther by papal legates, but failing, issued a bull of excommunication against him, threatening treatment as heretics for Luther and his followers unless they recanted within sixty days. Luther burned the papal bull publicly in December, 1520. Frederick the Wise, Duke of Saxony, protected him; hence the pope appealed to Emperor Charles V. That sovereign summoned Luther to a diet at Worms, promising safe conduct. Heedless of the fate of Hus a century earlier and of the pleas of friends Luther went. Ordered to recant he refused to do so unless proved wrong by the Bible. Charles V kept his word and Luther departed. Frederick of Saxony, however, fearing harm, had

Luther seized and carried to the castle of Wartburg, and there, widely mourned as dead, Luther translated the New Testament into German.

In 1522, Luther left the castle to guide the revolt. Luckily for him and his followers Charles V was too busy with French and Turkish wars to fight him, but in 1529 in a temporary peace he summoned a diet at Speier which endorsed the decree of Worms. Against this action the Lutheran princes protested, thereby receiving the designation of Protestant. Charles started to enforce the decree, but a Turkish invasion threatened Vienna. About the time of Luther's death, 1546, Charles seemed to have won a complete victory over the Lutheran princes, but they quickly rallied and drove him out, forcing the acceptance of the Peace of Augsburg in 1555. By the treaty each ruling prince was allowed to choose for himself and his people either Lutheranism or Catholicism. If an ecclesiastical ruler became a Protestant, he was required to return his holdings to the church from which he received them.

Spread of Protestantism.—In 1519 Zwingli, a priest of Zurich, in Switzerland, started a reformation. He was even more radical than Luther. The latter clung to the old ways unless he believed them prohibited by the Bible. Zwingli wanted to discard everything not expressly commended by the Bible. Zwingli was also very strict in disciplinary matters, securing the punishment of gaming, profanity, drunkenness, and even innocent sports. Luther believed that bread and wine at the Lord's Supper were as they seemed, but that the blood and body of Christ were also there, the two being mingled much as fire and iron are mingled by heating. Luther's doctrine was known as consubstantiation. Zwingli taught that Christ spoke of the bread and wine figuratively and that the bread and wine were symbols to call to the mind of his followers his sacrifice. German and French city cantons, as Zurich and Berne, accepted Zwingli's teaching, but the forest cantons remained Catholic. In a battle with them in 1531 Zwingli lost his life, but his reform continued.

The new leader was John Calvin, the founder of Puritan theology and of the Presbyterian Church with its government

of synods and presbyteries. Calvin worked out this plan in Geneva, to which city he had fled from France. In a little while Calvin became a czar over the church and the civil government. The law of Moses was the basis of his work. Blasphemy was a capital crime. A child might be beheaded for striking his father. Dancing, absence from church, and luxury in dress were severely punished. The blackest blot on Calvin's fame, however, was the execution of Servetus, a Spanish physician, who held doctrines somewhat like the modern Unitarians.² To Geneva came reformers from all over Europe. Having imbibed Calvin's teachings they went back home to spread his doctrines. Soon Scotch Presbyterianism under John Knox, the Puritan movement in the English Church, the Protestant movement among the Dutch, and the Huguenot Church in France were making serious inroads upon Catholicism.

Religious Troubles in England.—Henry VIII of England in time became tired of his wife, being attracted to another. Because the pope would not grant a divorce from Catherine for religious reasons and also for fear of offending Charles of Spain, who was her nephew, Henry discarded the pope and put himself at the head of the English Church. The English clergy and people were prohibited from making any more payments to Rome and the Act of Supremacy called Henry the "only supreme head on earth of the Church of England." At first Catholic doctrine was not interfered with, but in a short while the doctrine of purgatory was branded as false, the English Bible was introduced, and its use was allowed to private persons except "husbandmen" artificers, journeymen, and women below the rank of gentlewomen." Henry dissolved about seven hundred monasteries, ostensibly because of immorality but in reality to obtain their wealth. He beheaded "traitors" who recognized the pope and burned as heretics those who disagreed with papal doctrines. Sir Thomas More, beheaded for refusing to deny the pope's authority in spiritual matters, was the most famous victim.

² His death delayed medical science for a half century, for he understood the work of the heart and the purification of the dark blood by the lungs. This discovery was published with his theological beliefs and Calvin's followers succeeded in destroying 998 out of the one thousand books printed.

Edward VI, son of Jane Seymour, another of Henry's six wives, was only nine years old when he came to the throne and fifteen when he died. Under him unscrupulous lords robbed England, oppressing the Catholics and confiscating gild property. England became more Protestant. Priests were permitted to marry, and the use of the old litany, incense, holy water, and the surplice was prohibited. Under Cramner the English Prayer Book was given its form, and articles of faith which savored of Calvinism were adopted.

Mary, the daughter of Catherine of Aragon and a zealous Catholic, tried to swing England back to Catholicism. She threw out the changes of Edward's time, but proved unable to restore the church lands. The pope finally waived this point, absolved England, and received her back into the Church. Yet Mary undid her work by marrying Philip of Spain, losing Calais, and persecuting Protestants, some 270 of whom were burned in a few months, the most famous being Cramner, Ridley, and Latimer.

Elizabeth was of necessity a Protestant, being the daughter of Anne Boleyn whose legal marriage the Church would not admit. The English Episcopal Church was organized much as it now is. At the same time John Knox carried Calvinism from Geneva over to Scotland and established the Scotch Presbyterian Church. An Act of Uniformity required all people to go to Protestant services, but the act was not strictly enforced until Catholic plots against Elizabeth's life became frequent. During her reign Catholic France and Spain incessantly threatened England, yet in 1588 the most strenuous effort, the Spanish Armada, was repulsed, both Catholic and Protestant uniting to beat off the invasion. Ireland, intensely Catholic, became more violent as England became more cruel and more intimately associated with Protestantism.

Beginning with 1600 the important questions in English politics and religion related not to Catholicism but to Puritanism. Two groups soon developed—the Low church element in the church and the Independents outside of the church. The first wanted one national church with more spiritual power, more preaching, simpler ceremonies, and the abolition of the surplice, of the marriage ring, of the cross sign in bap-

tism, and perhaps even of the prayer book. The Independents, or Separatists, on the other hand, opposed a national church and exalted the independence of the local congregations. They were forerunners of the Congregationalists.

In time within the Established Church the reforming fervor died down, but it blazed out again when John Wesley, about 1748, founded the great Methodist movement. As a clergyman of the Established Church, Wesley emphasized especially the need of immediate and complete conversion. With the help of his brother Charles Wesley and a wonderful orator named Whitfield he rocked England from shore to shore in his open air meetings, the love of Christ and his power to save from sin being the chief themes. Throughout English life and in the Established Church a spiritual quickening resulted from the work of Wesley and his followers.

Religious Wars in France and Germany.—The important events of sixteenth-century France were religious. The Protestants, chiefly followers of Calvin, were called Huguenots. In 1560 they numbered perhaps one man out of every twenty but due to the fact that they consisted largely of nobles and of the wealthy middle classes their influence was far greater than their numbers would indicate. French rulers during most of the sixteenth century persecuted the Huguenots. Massacres were common, St. Bartholomew's in 1572 being only one of many. Open war between the rival factions began in 1562 and with some intermissions lasted until 1598. Henry of Navarre, a Protestant, became heir to the throne in 1589 on the death of Henry III, but it was only after four more years of war with the Catholic League that he became Henry IV. To win Paris Henry turned Catholic, exclaiming, "Paris is well worth a mass."

In 1598, Henry, by the Edict of Nantes, granted religious toleration to the Huguenots. Oaths which a Huguenot could not take had prevented the Protestants from suing at law to recover property. This disability was removed; liberty of conscience was granted; except in cathedral cities, the privilege of public worship was enjoyed; and some towns with the privilege of garrisoning were given the Huguenots as a security for their rights.

Luckily for the cause of the German Protestants the two men who followed Charles V as emperor were averse to persecution and religious war. For more than half a century after the Peace of Augsburg, therefore, the Protestants gained rapidly, absorbing much of southern Germany and Bohemia. But in 1618, the storm, the most destructive in all history up to the World War, broke. In it the German princes showed little ability and would have fallen before the Catholics had other countries kept out of the war. Denmark, 1625-1629, Sweden, 1630-1632, and then France, 1635-1648, threw their weight against the emperor. Year after year armies of freebooters ravaged the land. Peasants ceased to work and learned to steal, because no property was safe. At least half the population perished, and two-thirds of the movable property fell to thieves. Art and science fled, "heaps of ashes marked the site of once busy towns," and sandy deserts "filled the place of golden cornfields." Entire trades disappeared, as, for example, the wonderful old German wood carving. The addition of French, Spanish, and Italian words even corrupted the language. The leading princes became independent of the empire which fell to a shadow of itself. Savagery prevailed, the generation surviving the war reaching manhood without the aid of schools and churches and law and industry.

The Treaty of Westphalia in 1648 closed the war. It was made by ambassadors who represented virtually all the states of Europe. Its chief features were provisions intended to give religious peace to Germany, territorial rewards to France and Sweden, explicit acknowledgment of independence to Holland and Switzerland, and independence of German princes against the emperor. Each German prince was allowed to select the religion for his territory, and if his subjects objected they were allowed three years to withdraw.

The Catholic Counter Offensive.—The onward sweep of the Protestant tide met a dam in southern Europe, the Romance countries and southern Germany being saved to Catholicism. Although the chief factor in the retention of these districts was the Counter Reformation, or the purification of the Church, other factors such as the wars just noted for France

and Germany, the Inquisition, the work of the Jesuits, and the labors of zealous Catholic princes played a part.

Erasmus and other reformers had manifested interest in Luther's work, but being adverse to the multiplication of warring sects, they continued their agitation for reforms within the Church. The Council of Trent, 1545-1563, pruned away some of the abuses of the Church which nearly all condemned and which the Church admitted and stated Catholic doctrine more clearly. It denounced Protestant beliefs, exalted the Vulgate translation of the Bible as the standard, and rejected the right of private judgment in the interpretation of the Bible. It also affirmed the sacramental character of the Roman Church and upheld the Church ordinances. The unity of the Church, it maintained, remained in obedience to the pope.³

The Inquisition, or Holy Office, was organized primarily to exterminate the Albigenian heresy. When the heresy had been crushed, the office was reorganized as a special tribunal to ferret out and to try heretics. It was widely known as the Spanish Inquisition and dominated the Spanish possessions, Portugal, and Italy. Secret accusations were sometimes sufficient to cause the disappearance of victims in underground dungeons. Seldom did the accused see the accuser. The most fiendish torture, too, was devised to extort confession. The property of those found guilty was handed over to the Church, and the heretics were turned over to the government for execution by fire.

Ignatius Loyola, 1491-1556, gave promise of military distinction, but a severe wound in the leg left him a cripple for life. He entered a monastery and later, 1523, he journeyed to Jerusalem as a pilgrim, hoping to convert non-believers there. Rejected by the Franciscans he returned to Spain, where, at Barcelona, he entered a beginners' class in Latin. Barely escaping the Inquisition in Spain he went to Paris in 1529. In France he pursued his studies and sought to win converts.

After much difficulty Loyola and his followers overcame opposition in 1540, and Pope Paul III gave formal approval of

³ See Walker, Williston. *The Reformation* (Charles Scribner's Sons, New York, 1917) pp. 392-401.

their Society of Jesus. Its membership was limited to sixty, a requirement dropped three years later. Ignatius became general of the order. Soon two years of training were required for admission. Vows of obedience, poverty, and chastity were enforced. A long period of study of the classics and then of theology followed. Although military in conception, the order was not despotic. To the general elected for life obedience was, of course, due, but he might be deposed by the general congregation. As helpers the general had a confessor, an "admonitor," and several assistants who formed a sort of cabinet. This cabinet might call a meeting of the general congregation. The general appointed heads of the houses and schools and the provincials who had charge of the large subdivisions as countries. When Ignatius died in 1556, the order had over a thousand members scattered in one hundred places, but only thirty-five were then living who had taken the fourth vow or obedience to the pope in missionary work. Holding to the passion for service and to a strong religious life the Jesuits ministered to all ranks, converting Protestant princes in Germany, winning renown as statesmen, teachers, and scholars, and bringing tens of thousands of converts to Christianity and Catholicism in the New World.

Still another force deserves mention as contributing to the success of the Catholic Counter Offensive, namely, the help given by several Catholic sovereigns. John III of Portugal and Albrecht V of Bavaria afforded valuable help, and Philip II of Spain throughout his vast domains labored to extirpate Protestantism. And no ruler in Christendom surpassed the last in tenacity of purpose and relentlessness of method.⁴

Education in England.—From the time of the Norman Conquest to the Black Death there was little chance for an English workman to receive a practical education. That chance, however, soon appeared to a slight extent in the gild schools which trained the children of merchants and artisans. In 1400 in the case of the Gloucester Grammar School the judges declared the principle that "to teach youth is a virtuous and charitable thing to do, helpful to the people, for which the teacher cannot be punished by our law."

⁴ See *Ibid.*, pp. 368-392 and pp. 401, 402

Unluckily the temporary persecution in the fifteenth century of the unlicensed schoolmasters and the unorthodox schoolmasters (Lollards), the suppression of alien monastic foundations by Henry V, and the attack on monastery, church, and school injured education. Elizabeth tried to remedy the poor state of affairs by suppressing special privileges and by furnishing free of charge a little instruction for the parish poor. The Commonwealth government gave promise of a national educational system, but the Restoration withered that bud of hope because the schoolmasters were required to take various oaths and tests. An occasional gleam of hope flickered in the closing part of the seventeenth century and the opening part of the eighteenth century when munificent individuals established a number of scholastic foundations. In *Bate's Case*, 1670, the courts protected a master selected by the trustees against expulsion by the bishop and in *Cox's case*, thirty years later, questioned the control of the Church over all schools except grammar schools. In the last year of the seventeenth century the ray of light grew brighter, for the Society for Promoting Christian Knowledge began its work of teaching to poor children not only the truths of the Christian religion but also the elements of writing and reading. Within thirty years, 1658 schools attended by thirty-four thousand children had been founded. When those schools decreased in efficiency as the century aged, another organization appeared, the Sunday Schools being consolidated by Robert Raikes of Gloucester in 1780. In 1785 the Sunday School Society was established and two years later two hundred thousand children were enjoying training in its schools. They received instruction in secular subjects two evenings each week and for five and a half hours on Sunday.

Although Bell and Lancaster were advocating their systems at the close of the eighteenth century, and Adam Smith and Malthus were urging the need of education, England lagged far behind the chief nations on the Continent. Among the working classes in this period perhaps not more than one in twenty could read.

Education in Other Countries.—By the sixteenth century, the need for schools had become so flagrantly apparent in

France that the States-General called the attention of the king to the subject. Charles IX's ordinance in 1560 decreed that every cathedral or collegiate church have at least one teacher whose business was "to give free schooling to the children of the place," an ineffectual provision because of violent Church opposition. When the Edict of Nantes was revoked in 1685, Louis XIV attempted to convert the Huguenot children by placing them, at the age of five, in Catholic schools. Naturally, therefore, the Edict of 1698 which made this requirement also made provision for the necessary schools. In each parish without schools schoolmasters and schoolmistresses were to be appointed "to instruct the children of both sexes in the principal mysteries of the Catholic, Apostolic, and Roman Religion," and also "to teach reading and even writing, to all who might need them." The necessary funds for this work, 150 livres as a maximum for a master and two-thirds as much for a mistress, were to be raised by "taxing all the inhabitants."

Here and there a few favored children obtained a little schooling through the efforts of religious or charitable associations. By 1789 a score of such institutions taught the children of the masses. The most famous of these schools was one, the Institute des Freres des Ecoles Chretiennes, founded by Jean Baptiste La Salle in 1679. In 1785 its various schools taught thirty thousand children. The Ursulines, too, were especially prominent in the education of girls. Yet despite these honest efforts at the close of the century perhaps not one person in thirty could be called educated.

In the German states conditions were somewhat better than they were in France. Luther had emphasized the need of education and as early as 1717 Frederick William had made education compulsory in Prussia, during his reign 1700 schools being established. Frederick the Great followed the same policy, and for years prior to the outbreak of the French Revolution virtually every little German state had laws requiring parents to send their children to schools which had been established under the direction of the ecclesiastics. The Catholic states, too, though lagging behind the Protestant states, encouraged education. Maria Theresa of Austria made

the education of her subjects one of her greatest objects, and Joseph II followed, with tiring steps, her example. The writings of Rousseau and the practice of Pestalozzi toward the close of the period, moreover, were also giving considerable impetus to education throughout Germany and the Continent.

In the smaller countries of western Europe the educational conditions, on the whole, were much better than they were in England, France, and some of the German states. Scotland, for example, established, in the fifteenth century, three universities, St. Andrews, Glasgow, and Aberdeen. Grammar schools likewise were established, and in 1496 compulsory education for the children of barons and the well-to-do freeholders was begun. John Knox, moreover, encouraged education, and shortly after the Rebellion of 1640 parochial schools after the Geneva pattern were established under the Kirk. By the close of the eighteenth century one in ten of the Scotch population had an education, a proportion which even Holland did not attain until 1812. Switzerland, rather than Scotland, nevertheless, was perhaps the best educated country in Europe. John Calvin was responsible for the establishment of important schools, including the University of Geneva. In 1820 only one in sixty of the Swiss populace was illiterate as compared with one in five in England.

Glimpses at Writers.—Christopher Marlowe, sometimes called the father of Elizabethan drama, was perhaps the most famous predecessor of William Shakespeare, his first drama, *Tamburlaine*, taking London by storm. *Doctor Faustus*, *The Jew of Malta*, and *Edward II* were other plays of a promising genius whose life came to an untimely end in a tavern brawl. *As You Like It* shows Shakespeare's brilliance in comedy, *Macbeth* reveals his power in tragedy, and *Julius Caesar* shows his mastery of the historical style. *The Merchant of Venice*, *Romeo and Juliet*, and *Henry IV* compose another famous trio of perhaps the most widely known author of all time. Francis Beaumont, John Fletcher, and Ben Johnson were other Elizabethan dramatists. Prose fell far below drama in caliber, but included the works of John Lyly, Philip Sydney, and Francis Bacon and the famous King James Bible of 1611.

The typical English writers of the Puritan Age and the

Restoration were John Milton, whose best works were perhaps *Paradise Lost*, *Comus*, and *Samson Agonistes*; John Bunyan, the immortal author of *Pilgrim's Progress*, which pictures the spiritual earnestness of the common people; and John Dryden, author of *Annus Mirabilis*, *All for Love*, *Discourse on Satire*, and numerous other works. Because of his neat serviceable style Dryden is referred to often as the "father of modern prose." George Herbert's *The Temple* is one of the best examples of the Puritan poems; Robert Herrick's *Hesperides* and *Noble Numbers* shows a combination of Puritan sobriety with Cavalier gayety; and Samuel Butler's *Hudibras* reveals a mastery of doggerel rime and ferocious ridicule. Thomas Browne, Isaac Walton, John Evelyn, and Samuel Pepys contributed notable examples of prose literature.

The eighteenth century, unlike that of preceding centuries, was an age of prose rather than of poetry. Alexander Pope, Jonathan Swift, Joseph Addison, Richard Steele, Samuel Johnson, James Boswell, Edmund Burke and Edward Gibbon may be taken as examples of eighteenth-century classicism. Daniel Foe, or later Defoe, was one of the eighteenth-century novelists, his best known book, *Robinson Crusoe*, appearing in 1719. Samuel Richardson's *Pamela, or Virtue Rewarded*, 1740, and *Clarissa, or the History of a Young Lady*, 1748, appealed to the sentiment of millions of English and Continental readers, but aroused the ridicule of Henry Fielding, who long had viewed the seamy side of life. His *Joseph Andrews*, 1742, *Tom Jones*, 1749, and *Amelia*, 1751, strike at the sentiments of Richardson, but portray only a small part of English society.

Numerous eighteenth-century romantic poets enjoyed high repute. William Collins' *Ode to Evening* and Thomas Gray's *Elegy Written in A Country Churchyard* are classics. Oliver Goldsmith's *The Deserted Village*, *The Vicar of Wakefield*, and *She Stoops to Conquer* are well known. Robert Burns, one of the most beloved poets of all times, ruined his life by dissipation, but most of his poetry still lives and grips and moves the human heartstrings of its readers and hearers. William Cowper's *John Gilpin* and religious poems have won fame. James Macpherson's *Fingal* and Thomas Chatterton's *The Rowley Papers*, both forgeries dealing with medieval life, show

the interest in romanticism. Thomas Percy's *Reliques of Ancient English Poetry* revealed the growth of research. William Blake, heralded a lunatic and a genius by different groups, produced some unreadable and some readable works.

Other countries likewise had famous writers and golden ages in literature, but only a hint of their work can be given here. For Spain the golden age was the sixteenth and seventeenth centuries. The *Don Quixote* of Cervantes, 1547-1616, has been termed "the perfect novel of chivalry"; it won its author an immortal reputation because of its beautiful prose, its fine spontaneity and depth, its irresistible humor, and its skillful handling of conversation. In France, Boileau, an essayist, exalted his great contemporaries. Moliere, a writer of comedy, entertained and instructed all who were open-minded enough to see that he was criticizing their inconsistencies, stupidities, and follies. Corneille and Racine wrote excellent dramas. Fontaine immortalized himself by his fables. Bossuet, a brilliant orator, La Rochefoucauld, a master of epigrams, and La Bruyere, an outstanding moralist, added to the prestige of Louis XIV's reign. Frederick the Great of Prussia, 1740-1786, was an enlightened despot, a patron of literature, and an author of note. He was one of the first European sovereigns to evince an interest in the work of Voltaire, Montesquieu, and other French writers considered in the next topic.

An Intellectual Revolt.—One of the outstanding characteristics of the early modern period was the intellectual revolt against authority and magic. Nicholas Copernicus, of Poland, 1473-1543, was the founder of the modern view that the earth is a planet, which revolves around the sun in a circular orbit. Tycho Brahe, 1546-1601, a famous Danish astronomer, improved astronomical instruments and made accurate observations. Kepler who was born in Wurttemberg in 1571, an associate of Brahe, developed three famous laws of planetary motion. Galileo, 1564-1642, proved at Pisa that falling bodies, irrespective of their weight, fell at the same rate of speed and that time could be measured by the swinging of a pendulum. Galileo also developed the telescope and showed that the moon had hills, valleys, and the like. While in jail be-

cause of the sentence of the Inquisition Galileo experimented with mechanics. He proved that falling bodies approach the earth with a uniformly quickened movement, that a projectile moved as a parabola, and that whether or not solids floated in liquids depended upon their specific gravity; he made discoveries relative to transverse strains and the strength of beams; he applied the pendulum to clocks and he made the first thermometer. Sir Isaac Newton, 1642-1727, invented calculus, spectrum analysis, the law of gravitation, and formulated the three laws of motion. He held in his most important discovery, the law of gravitation, that the same force which made a body fall to the earth made the moon move round the earth and the other planets around the sun.

Advances in astronomy were linked naturally with advances in mathematics. By the close of the sixteenth century Arabic figures had supplanted for the most part Roman figures in arithmetic. Decimal fractions, improvements in multiplication, division, and geometry, and signs for equality, minus, and plus made their appearance. Logarithms also appeared early in the seventeenth century. Meanwhile the famous French philosopher, Descartes, developed the laws of analytical geometry, and Newton and Leibnitz independently discovered calculus. By the eighteenth century, moreover, the symbols and processes of modern algebra had been well established.

Scientists likewise sought to discover the laws of the human body. Vesalius, 1514-1564, a Belgian educated at Paris, was perhaps the first modern to dissect the human body and to publish his drawings. Eustachia, an Italian contemporary, found the tube joining the throat to the middle ear. Fallopio, another contemporary, is remembered for his association with the human oviducts. Fabricius, 1537-1619, found the valves in the veins and taught the famous William Harvey, 1578-1657, who is remembered in particular for the discovery of the circulation of the blood. The development and the utilization of the microscope also prepared the way for a continued development of biology. An Italian anatomist by the name of Malpighi, 1628-1694, discovered the corpuscles in the blood, and Leeuwenhoek of Holland revealed the existence of protozoa.

In the seventeenth and eighteenth centuries many important discoveries were made in chemistry. One of Galileo's disciples, Torricelli, 1608-1647, ascertained atmospheric pressure and the weight of the atmosphere and invented the barometer. Pascal, a contemporary, ascertained the pressure of the atmosphere at different altitudes. A Dutch physicist by the name of Huygens by the close of the seventeenth century had applied pendulums to clocks and had developed spiral springs for watches. He had, moreover, formulated the wave theory of light and written scientific treatises on light and weight. Jan van Helmont investigated gases and invented the word "gas." Robert Boyle investigated atmosphere, gases, and other materials and formulated the law that the volume of a gas varies inversely with the pressure applied to it.

Toward the close of the seventeenth century governments began to subsidize scientific enterprises. The Royal Society of England dates from 1662 and the Greenwich Observatory from 1672. Colbert of France made the Academy of Sciences a government institution in 1666 and the next year founded the observatory at Paris. The Royal Academy of Science in Berlin dates from the very close of the seventeenth century. The publications of the various societies naturally promoted learning. Danish, English, French, and Russian governments cooperated in 1769 by sending scientific expeditions to different parts of the earth with the object of determining more exactly the distance of the sun from the earth.

The eighteenth century was a period of marked progress in chemistry. Boerhave of Holland, 1668-1738, founded the science of organic chemistry. In 1750 Dr. Joseph Black of Scotland changed the ideas of heat and chemical decomposition by his successful studies of limestone. Other British scientists made notable contributions, Cavendish discovering hydrogen in 1766, Rutherford, nitrogen, in 1772, and Priestly, oxygen, in 1774. In 1784 Cavendish produced water out of hydrogen and oxygen. Lavoissier, 1743-1794, a French chemist, invented most of the terms of modern chemistry and founded quantitative chemistry. Some advances were likewise made in physics. Dr. Black, experimenting with the heating of

water, found latent heat. Various scientists made numerous discoveries in the field of electricity, differences in conductivity of substances and the oneness of the electric spark and the lightning bolt, the last-mentioned being a contribution of Benjamin Franklin.

The beginnings of other sciences also appeared. Lazzaro Moro in 1740 advanced the theory that the rocks had of necessity been in the process of formation for a long period of time because the fossils of a long-forgotten life were found in them and that the earth's crust consisted of numerous superimposed strata. Buffon of France, 1707-1785, in his *Natural History* contributed to the study of geology, and Linnaeus of Sweden, 1707-1778, developed the science of botany.

Francis Bacon, 1561-1626, early revolted against the scholastic philosophers. He insisted upon careful investigation, and he is termed the forerunner of John Locke and the beginner of the empirical school of philosophy. Descartes, 1596-1650, perhaps more than any other gave the declaration of independence against medieval bondage and urged the importance of man's own mental processes. Descartes, Spinoza, Leibnitz, and others developed elaborate theories, trying to rationalize concerning God, the world, man, and their varied relations to each other. John Locke, 1632-1704, believed that the ideas originated with the five senses or reflection. His teachings were expressed in his famous *Essay Concerning Human Understanding*. The English Deists, varying widely in particular doctrines, taught that the first cause of the world was a personal God who was unconcerned in the details of the world's working. They denied miracles, the doctrine of the Trinity, Christ as a mediator, the atonement, and the doctrine of a chosen people.

Thinkers likewise attacked political absolutism. In England the Petition of Right of 1628, the execution of Charles I, and the Revolution of 1688 revealed a growing feeling of democracy. John Milton, 1608-1674, believed that ultimate power rested with the people. James Harrington, 1611-1677, even wrote of an oligarchical republic for England. John Locke defended the Revolution of 1688, his famous political works being *Letters on Toleration* and *Treatises on Government*. Locke started

with a state of nature in which men enjoyed such natural rights as property, liberty, and life. The first arose through applying liberty to a particular object. Each individual, because of inconveniences, contracted with every other individual, civil society thereby developing from natural society. The civil society thus formed then made a contract with its ruler for the protection of life, liberty, and property. Offenses were defined and punished. Security was to be obtained through the separation of the executive, legislative, and federative functions of government, the last being the conduct of international relations. The executive power included the judicial. With Locke, of course, the legislature, representative of the people was regarded as the supreme authority.

In France chiefly, but also in Italy and elsewhere, an increasing group of "Philosophers" or "Encyclopaedists" was questioning authority. Montesquieu, 1689-1755, in *Spirit of Laws*, discussed in scientific spirit the question of civil liberty and contrasted English liberty with French tyranny. Voltaire, 1694-1778, wrote voluminously, plays, history, dictionaries, and the like. He urged freedom of opinion and expression, at least for the educated men, personal liberty, equalization of taxes, the abolition of serfdom, and the suppression of feudal dues. Rousseau, 1712-1778, published several important books, the most famous being *Julie, ou La Nouvelle Heloise*, representing his ideas on nature and love, the *Social Contract*, dealing with government, and *Emile* expressing his views on education. Rousseau emphasized the simple rural life, advocated law as the expression of the general will and the government as the mere agent of the sovereign people, and urged the guiding of the pupil openly or secretly by a tutor whose business was the arousing of the pupil's interest in learning. Sieyes urged that the general will could be aroused by the convening of an extraordinary constitutional assembly. The Physiocrats, meanwhile favored and supported in national policy by Turgot, questioned the doctrines of mercantilism and supported the doctrine of freedom which found its classical expression in Adam Smith's *The Wealth of Nations*, 1776. Beccaria, an Italian nobleman, 1735-1793, in *Crime and Punishments* urged the clear state-

ment of crimes and penalties and the abolition of torture and the death penalty.

The French philosophers summarized their views in the famous *Encyclopaedia* edited by Diderot (1713-1784). In 1752 the Royal Council suppressed the first two volumes as detrimental to religion and the king, but the censor himself gave the manuscripts and plates a hiding place in his home. The Parlement of Paris on the appearance of the seventh volume stopped the sale and publication of the work. Yet the king's mistress and high government officials supported the men who were undermining their authority. The work proceeded on condition that the remaining volumes would appear at the same time. It was completed in 1765, fifteen years after the first volume had been issued. In all there were seventeen volumes of text and eleven volumes of plates.⁵

SELECTED REFERENCES

Chapman, C. E. *A History of Spain* (New York, The Macmillan Company, 1925) Chapters XXV, XXVII, and XXX-XXXIV.

Coate, Mary. *Social Life in Stuart England* (London, Methuen and Company, Ltd., 1924) Chapters V and VI.

Davis, W. S. *Life in Elizabethan Days* (New York, Harper and Brothers, 1930) Chapters XI, XII and XVI-XVIII.

Evans, Mary. *Costume Throughout the Ages* (Philadelphia, J. B. Lippincott Company, 1930) Chapters VI, VII, XI, and XII.

Oechsli, Wilhelm (Eden and Cedar Paul Translation). *History of Switzerland* (Cambridge, The University Press, 1922) Chapters VI, XV, and XX.

Robinson, J. H. *Readings in European History* (Boston, Ginn and Company, 1906) Chapters XXIV-XXIX.

Stone, Gilbert. *A History of Labour* (New York, The Macmillan Company, 1922) Chapter VII.

Thorndike, Lynn. *A Short History of Civilization* (New York, F. S. Crofts and Company, 1926) Book VII, Chapters XXXIII and XXXIV.

⁵ See Higby, G. P. *History of Europe* (Houghton Mifflin Company, Boston, 1927) pp 274-299.

CHAPTER XIV.

LABOR AND LIFE

Slavery.—Save for captives taken in the Moorish wars and in the religious wars between Mohammedans and Christians, slavery virtually disappeared during the closing part of the Middle Ages. The battle of Lepanto in 1571, for example, released about twelve thousand Christians from the dreadful life of the galley slave. Yet the settlement of the New World introduced a new kind of slavery—Indian—and greatly stimulated another—Negro.

Columbus in 1494 carried back five hundred native Americans to be sold in Seville as slaves. Although Isabella in 1500 ordered the freeing of all Indians held in bondage, her clemency did not extend to the Moors and the Africans, nor did it apply to the natives in the New World. The Spanish compelled those natives to slave in the mines and on the farms, even though they died under the treatment. From time to time, too, after Indian wars, the English colonists sold Indians into slavery and with results similar to those experienced by the Spanish.

About the time Queen Isabella freed the natives whom Columbus had enslaved she reserved for herself and Ferdinand one-fourth of all slaves whom new discoveries might bring. In 1501, moreover, royal edict allowed the transportation of negro slaves "born in slavery among Christians." Within two years slaves were so numerous in Hispaniola that Ovando, the governor, begged that no more be sent. The Spanish government, therefore, forbade for a while the transportation of negro slaves bred in Moorish families. When the cultivation of sugar began, this restrictive policy ceased. Charles I in 1516 granted licenses to the Flemings to carry Negroes to the colonies. Las

Casas, moreover, seemed to favor negro slaves if thereby the lives of the Indians could be spared. In 1518, as a result of deliberate calculation of the need, the monopoly of importing four thousand slaves into the West Indies for eight years was granted to La Bresa, one of Charles' favorites. He sold it to the Genoese who obtained their slaves from the Portuguese. The first Englishman to engage in this rapidly developing slave trade was Sir John Hawkins, but the first slaves sold in the English colonies were the twenty landed by the Dutch at Jamestown in 1619. Commercial companies indulged in the traffic, the Dutch West India Company being formed in 1621 and the English Royal African Company in 1672.

Between 1698 and 1707, according to Dubois, about twenty-five thousand slaves were carried annually to the West Indies, and throughout the eighteenth century slave imports averaged more than thirty thousand yearly. The Assiento of 1713 allowed England to transport five thousand slaves yearly to the Spanish colonies and for a score of years she probably carried double that number to her own colonies, between 1733 and 1766 averaging three thousand to South Carolina alone. Bryan Edwards estimated that the number of slaves carried into the British colonies from 1680 to 1760 was 2,130,000. He stated further that about 1790 the British carried thirty-eight thousand slaves, the French twenty thousand, the Portuguese ten thousand, the Dutch four thousand, and the Danes two thousand, a total of seventy-four thousand.

But feeling against slavery became increasingly bitter as time passed. Various popes had criticized the institution in strong terms and the Germantown Quakers had raised their voice against it as early as 1688. So one by one the European nations restricted or condemned slavery. Denmark abolished the traffic in slaves in 1802, England and the United States followed six years later, France condemned the traffic in 1818, Spain two years later outlawed it, and Portugal in 1836 stopped the commerce in slaves. Although occasional violations came, those dates virtually marked the end of the negro slave traffic. Slavery itself, however, persisted in some countries, not being abolished in the United States until after a

bloody Civil War, and even yet it is found in some backward countries.

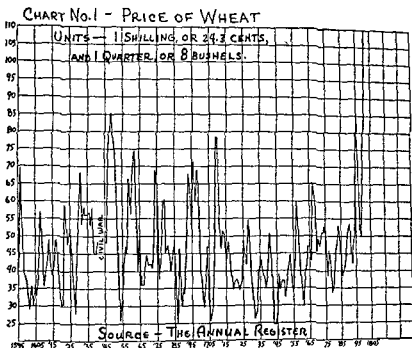
Free Labor, Especially in England.—At the close of the Middle Ages labor, both in agriculture and in manufactures, was in a very favorable condition and the prosperous period lasted on into the reign of Henry VIII. That king, by the suppression of the monasteries, the debasement of the coinage, and the oppression of the people, depressed the laborers, a condition made worse when Edward VI's government confiscated much gild property. Many of the copyholders had been deprived of their land through the enclosure movement and likewise had fallen into beggary, and still others had lost their plots of land. Such contemporary writers as Harrison point out that enclosures still were being made and that some laborers were too poor to buy corn.

That condition may be shown best by wage statistics. In Elizabeth's reign the annual wages of an agricultural laborer were about eight and a fifth pounds, but his cost of living was about eight pounds. In 1563 artisans made a daily wage of eight pence in winter and nine pence in summer, but at harvest time wages occasionally rose to eight or ten pence. In 1563 the government started a new system for determining wages. After expressing a fear that they were too low in some localities, it placed their regulation in the hands of the employing class by requiring justices of peace in quarter sessions to fix them. The justices were expected to take into account the price of food "and other circumstances necessary to be considered" when fixing wages. Thorold Rogers calls the plan "a conspiracy concocted by the law and carried out by the parties interested in its success."¹ At the close of the sixteenth century labor was much worse off than it was at the close of the fifteenth century, for, if Thorold Rogers is right, the peasant required forty weeks to earn the provisions which he could have purchased with fifteen weeks' labor in 1495 and the artisan needed thirty-two weeks in place of ten for the same purpose. By the beginning of the eighteenth century the laborer had sunk to a condition of great poverty. In 1725, for example, an agricultural laborer could not earn more than

¹ See his *Six Centuries* (Humboldt Publishing Company, New York, 1891) p. 398.

thirteen to fifteen pounds a year and the artisan was limited to sixteen pounds. Neither could feed himself with the proceeds of a year's labor.

Yet part of the suffering was due to excessive drinking and thriftlessness. Daniel Defoe in *Giving Alms No Charity* insisted that many workers could make fifteen to twenty shillings a week but preferred begging to working. Arthur Young in commenting on agricultural wages about 1768 said that wages within a radius of twenty miles from London averaged



ten shillings nine pence weekly and decreased as the distance from London increased, falling to below six shillings more than three hundred miles north of London. About twenty years later Young pronounced agricultural wages in France seventy-six per cent below those of England.

William Edward Hartpole Lecky disagrees with Rogers and Gibbins and declares that during the first three-quarters of the eighteenth century the "position of the poorer agricultural classes in England was singularly favorable." Lecky

believed that during the next few years wages did not increase as rapidly as did the price of necessities, but he regarded statistics as too uncertain to allow dogmatic assertions. After 1792, however, he believed that the condition of the working people "began most seriously to deteriorate."

Poor relief would lead us to believe, despite fluctuations, that the condition was downward throughout the period. But why, we might ask, did legislation help in the depression of wages when it failed in the case of the Statutes of Laborers? During the reigns of Henry VIII and Edward VI the laborers were weakened by the debasement of the coinage, the substitution of sheep farming for tillage, and the enclosure movement. Men everywhere seemed less bound to the land than formerly, having been expelled by the enclosures or attracted to the manufacturing industries. A large class dependent upon wages thus had arisen, and these landless individuals virtually were compelled to accept anything the employers might offer. Self-interest caused the employers and their agents, the justices, to keep down wages. The old unions of the workers, moreover, had disappeared, the combined action of a peasants' revolt being a thing of the past. The law had been twisted until the doctrine of "conspiracy" had labeled "all efforts of workmen to improve their condition as *ipso facto* illegal." Any effort to form associations to raise wages or to improve conditions was, therefore, illegal and punishable by fine and even by imprisonment. Workers, furthermore, by the promise of indemnity were bribed to betray their fellow workingmen. From the time of Edward I to that of George IV thirty-five acts of Parliament were passed with the object of preventing labor organizations. Common law, special laws, and general laws were directed against the laborers. Adam Smith remarked that two laborers could scarcely engage in a conversation without ending in "a conspiracy against the public or in some contrivance to raise prices."

Restrictions, however, did not entirely prevent the formation of unions. Although unions are really a product of the Industrial Revolution, some can be traced back to 1700. Among the members such names as "institutions," and "associations," "trade clubs," "trade societies," "unions," and "union

societies" were employed. Some of these early associations were apparently little more than friendly societies. One of the first of the associations was that of the Devonshire woolen workers which dates back to about 1700. The most lasting, however, did not come until the close of the eighteenth century, the Sheffield metal workers dating from 1787, the Lancashire hand loom weavers from 1792, the Kent papermakers from 1795, and the Yorkshire woolen workers from 1796.²

In general, organizations of laborers on the Continent were everywhere rarer than in England, being usually subject to prohibitions much the same as in England. Even the French Revolution of 1789 failed to legalize them. The Act of 1791 prohibited meetings for the election of presidents, secretaries, or syndics; the forming or passing of regulations or resolutions "with reference to their pretended common interests"; and the instigation of strikes or intimidation of workers called measures "against the free exercise of industry and work to which all sorts of persons have a right under all sorts of conditions agreed upon by private contract."

The condition of the English laborers appeared to be "much above the general level of the same class on the Continent." Gregory King about 1688 calculated the average annual income of all classes in England as seven pounds eighteen shillings a head, in France, as six pounds, and in Holland as eight pounds one shilling and four pence. The per capita expenditures for food, according to him, were: the English, 3 £ 16s. 5d; the French 2 £ 16s. 2d; and the Dutch 2 £ 16s. 5d.

The difference in income and expenditures was a sign of much greater superiority in the well-being of the English laborer over the French laborer. In truth, at the close of the eighteenth century the English laborers were better paid and better off than were the Continental laborers, for their food was better and more abundant, their labor was less excessive, and they were free from the burden of debt which reduced the peasant proprietors to a state approximating slavery.

In eastern and southern Europe wages were especially low,

² See Bland, A. E., Brown, P. A., and Tawney, R. H. *English Economic History Select Documents*, p. 626, for the benefits of a friendly society.

the Russian peasants at times apparently being compelled to work for nothing as appears in the following quotation:

We cut wood for charcoal, we drive it, and we put it in piles. We burn the charcoal, and we drive it to the blastfurnaces. We drive various kinds of timber to the works, and from them we drive all over the district of Verkhoturksk; and we drive iron and other military supplies to the river Chusovaya, where we build rafts and float them to the great Tsar at Moscow. And this we do, without any pay, although for the voyage we have to send about twenty men, whom we have to hire at a very expensive rate... And Akinfey Nikitch (the manager of the work) holds us at the works for driving and for cutting (timber) four weeks and more, and we suffer from him great misfortunes and hunger, because the cutting of timber is done in the winter-time, when snow covers everything.³

The Russian state set wages. Women in the various textiles, notably cloth, chintz, and linen, received only two or three rubles⁴ a month, and in the silk factories even less, eighteen to twenty-two rubles per year. Women thus labored long hours for a nickel a day or even less. In the silk factories the men received from fifty to eighty rubles a year. In woolen and paper factories where wages were below average, the men made about four rubles a month. Working conditions were bad, most buildings being constructed so poorly that the "weavers had hardly enough light to see what they are weaving." Poor lighting, of course, resulted in inferior work and thus perpetuated low wages.

The lack of educational facilities condemned the Spanish laborer to a low wage. The unskilled laborer of Seville in 1786 received about twenty-eight cents a day and in Barcelona about fifty cents. The agricultural workers of Andalusia made from twenty-two to thirty-three cents daily, but shepherds received only two pounds of bread each day and ten dollars yearly. There was no such thing as a labor union, a strike was a crime, and appeals to a higher officer against an employer seldom succeeded. Because the wage was low, the employment unsteady, and the employer's power well-nigh absolute, the laborers suffered, famine and beggary being frequent.

For Europe as a whole wages varied from a few cents a day

³ Mavor, James. *An Economic History of Russia* (J. M. Dent and Sons, London, 1925) Vol. I, pp. 437, 438.

⁴ A ruble is approximately the same as our half-dollar.

to as high as fifty cents a day. Yet even skilled laborers could scarcely expect to average as much as a dollar a day. Low wages and unemployment, consequently, led to crime, revolution, and attempts at poor relief.

Poor Relief.—Poor relief, early connected with religious practices, was at first handled in a haphazard way. The church fund, originating on the Continent, had a fourfold use: one part for the bishop, one part for the remainder of the clergy, one part for the church building, and one part for the poor. This method entered England in the eighth century, and, supplemented by guilds and private individuals, aided in poor relief. During the reign of Henry VIII the enclosure movement and the suppression of the monasteries intensified the problem of relief. Henry's laws were especially severe, dead beggars apparently being preferred to live beggars. When those laws were modified, people were exhorted by the clergy and eventually by the bishops to contribute to the support of the poor. Exhortation proved ineffective and taxation developed gradually. The provisions of these early laws are summarized in the Poor Law of Elizabeth, 1601.

That famous measure recognized three classes—able-bodied, those unable to work, and children. The first class was to work up such raw materials as iron, hemp, flax, wool, etc. and any able-bodied persons refusing to work were to be punished by being imprisoned or put in the stocks. The second class, or those unable to work, were to be placed in almshouses if they had no relatives who could take care of them. The third class, or children, were to be taught trades, the boys being apprenticed until twenty-four and the girls until twenty-one, or marriage. Overseers were authorized to raise the necessary funds by taxing the occupiers of real estate. If one parish was overburdened by its tax, aid might be obtained from other parishes in the "hundred" or in the county.

From 1660 to 1760 conditions revealed little improvement, for poor rates were heavy and the settlement laws were severe. The Settlement Act of 1662 freed the parish from poor relief except for those who had legal settlement through birth, sojourn, proprietorship, service, or apprenticeship. Justices might on complaint of the overseers order any person who

had lived in a given parish less than forty days to go back to his own parish. This law was expected to place the burden of relief where it belonged, but it destroyed the mobility of labor until 1795 when it was modified substantially by providing that a person could not be expelled from a parish unless he was actually dependent.

Rising expenditures naturally led to the search for more economical means of caring for the poor. Hence the poor house developed. At Bristol in 1697, by act of Parliament, a workhouse was erected, others followed, and in 1722 Parliament allowed parishes to combine in order to erect, to buy, or to rent workhouses, if they did not want to act singly. The work test also was adopted, aid being refused to anyone who would not go to such a house. Expenditures for poor relief immediately showed a decrease. Another provision of the act permitted the "farming out" system whereby parishes might contract with persons for the boarding, the lodging, and the employment of the poor. Unscrupulous individuals thus received an opportunity, cruelly employed, to exploit the poor, a practice which was not abolished until Gilbert's Act in 1782.

By that act, which was optional rather than mandatory, neighboring parishes were given the right of unified administration and a common poorhouse. Paid guardians appointed by the justices were to administer both indoor and outdoor relief, the duties of the overseers being restricted to the assessment and the collection of funds. The justices also appointed the visitors and with them exercised supervision over poor relief administration. The old and the infirm, the poor mothers of illegitimate children, and the children too small to work were to be kept in the poorhouse, but the guardians were to find employment for the able-bodied near their homes, collect their wages, apply the earnings on their maintenance, and supplement the deficiency by a subsidy from the poor funds.

Thus began the allowance system which pauperized and demoralized English labor. In 1795 the Berkshire magistrates even established the custom of helping all industrious families whose incomes were insufficient, the amount of relief depending upon the price of wheat and the number in the family. The practice became popular and in 1796 Parliament le-

galized outdoor relief by dropping the "workhouse test" and by making wage-subsidies lawful.

If, in England, the sheep ate up the peasants "those of Bohemia were equally devoured by the carp," for the rural class was dispossessed to make fish ponds for the nobles. Laws somewhat similar to the early English laws for poor relief were passed in France, Holland, and other countries. In France the reduction of the lower classes to beggary reached a depth unknown in other countries. Taine estimated that in 1715 one-third of the population, or six million, perished from hunger and destitution. Twelve years afterward so many lived on the grass of the fields that Saint Simon later declared: "The first king in Europe is great simply by being a king of beggars of all conditions." The Revolution of 1783 was, in fact, the inevitable result of centuries of oppression during which the privileged drones had sucked well-nigh dry the haggard peasants and the dwarfed workers, who were "sullen masses of rags and misery" herded in cellars and garrets. The havoc wrought by the Thirty Years' War in Germany is equally indescribable. Sufficient here is the observation that murder and cannibalism were found and that in the neighborhood of Worms was a group of beggars "who fell upon passers-by and devoured their bodies for sustenance."

Life of the Laborers in England.—One of the criteria for measuring the welfare of the laborers, organized or unorganized, is the scale of comforts. During the Tudor period, for those who had the means to purchase them, comforts were increasing. Chimneys were being introduced rapidly into the homes at the close of Queen Elizabeth's reign. Pillows had come into general use. Carpets had taken the place of the filthy rushes and floor-boarding grew in favor. Pewter and even silver ware had begun to take the places of the wooden trenchers, and although the working classes had not yet adopted the use of spoons and forks, during the seventeenth century such utensils became more common. Glass, despite the window taxes, was being introduced into the cottages. Furniture, too, was becoming more elaborate.

More attention was being given to sanitation also, but as yet few people understood its principles, and the interments

and disinterments in the church yard of St. Innocens, for example, caused pestilences in 1554, 1737, and 1746. In 1780 the cellars in all the houses on a street adjoining the cemetery were found full of gases "which would not support light." The Great Plague in London, 1665, and numerous diseases in other places took great tolls because of the insanitary conditions of living.

The clothing of the working people, moreover, was still coarse and home-made, the raw material often coming from flax raised at home or from wool produced by the farm sheep. A law of Henry VIII's reign required every person holding sixty acres of land to sow one rood with flax or hemp and a law of Elizabeth's reign increased the amount to one acre. The primary purpose seems to have been to furnish the raw material in whose preparation the people might find home employment. Moryson declared:

...Husbandmen weare garments of course cloth made at home, and their wives wear gownes of the same cloth, kirtles (petticoats) of some light stuffe with linnen aprons, and cover their heads with a linnen coyfe and a high felt hat, and, in general, their linnen is course and made at home.⁵

And that description applied with considerable accuracy in northern England at the close of the eighteenth century, but in the towns and among the more well-to-do laborers a love of display, of color, and of "purple and fine linen" appeared.

During the entire period bread was the chief food and beer or "small drink" was the chief drink of the working classes. Oatmeal was especially common in the North and before the late enclosures had lessened the keeping of cows milk was an important article of diet. Tea came into use during the Tudor period; the first coffee-house was started in London in 1652, and chocolate was advertised five years later. Not until the middle of the eighteenth century, however, were these beverages widely used by the laborers. Throughout the period the laborers seemed to live rather plainly, contenting themselves with grains, potatoes, milk, eggs, vegetables, and fish. If Gregory King is correct, out of a population of 5,500,000 in 1696 about 2,700,000 ate meat daily, 1,540,000 enjoyed meat

⁵ Quoted in Stone, Gilbert. *A History of Labour*, p. 142.

at least twice a week, 240,000, sick or under thirteen months in age, ate no meat, and the remainder, or 1,020,000 recipients of alms, did not eat meat more than once a week.

Poor relief shows that many people were unable to support themselves. Many of these unfortunates became beggars or thieves. According to Harrison, in Henry VIII's reign alone seventy-two thousand "great and petty thieves" were executed. Those who escaped and endured poor relief had the barest and simplest fare. For a long period during England's history she had ten thousand able-bodied beggars yearly and sent several hundred thieves to the gallows. Most people, however, were unconcerned with the sufferings, for as Harrison says: "Certes, in some men's judgment those things are but trifles and not worth regarding."

Yet, despite their sufferings, the common people had leisure and amusements. Chamberlayne mentions among others football, cricket, and handball as favorites. Golf, cudgels, cock-fighting, bear-baiting, bull-baiting, skittles, bowling, and shovel-board were all practiced, and jumping, wrestling, and pitching the bar, perhaps less popular than the games just mentioned, were also noteworthy. Ringing of bells, as in Brabant and Flanders, was a popular amusement. Country people were interested especially in field sports.

Many of the amusements reflected the barbarous manners and calloused feelings of the time. In 1729 and 1730 a London entertainment advertised "a mad bull to be dressed up with fireworks and turned loose in the game place, a dog to be dressed up with fireworks over him, a bear to be let loose at the same time, and a cat to be tied to the bull's tail, a mad bull dressed up with fireworks to be baited." Such pastimes were mixed with prize-fighting, boxing matches between women, or combats in which quarter-staves or broadswords were used. Dogs were taught to hunt ducks in the so-called ducking ponds, a sport varied at times by tying an owl to the back of a duck. In time, of course, one or both birds were killed as the duck dived in terror.

Cock-throwing, as old as the days of Chaucer, was one of the most barbarous amusements, and one of the most popular. The popularity of the game is thought to have been due to

hatred of the French who were symbolized by the cock. A cock was tied to a stake and thrown at with sticks until it was killed. Cock-fighting, dating from the Greek period, was also a popular game. Henry VIII and James I were among its patrons. School boys from the time of Henry II to the close of the eighteenth century practiced the game on set days and schoolmasters often claimed the runaway cocks. At times sixteen pairs of cocks were matched against each other, being fought until all on one side were killed, and the conquerors were then divided and fought, the process being repeated until only one cock was left alive. County met county in cocking matches, much as our counties engage in horseshoe pitching contests or colleges in football games. And it is said that church bells were rung for the winners in the Welsh main.

Life in Selected Countries.—Conditions in Spain represent fairly well life in many parts of southern Europe, those in Switzerland are representative of many cities of central Europe, and the conditions pictured in Scandinavia are suggestive for northern and eastern Europe.

Throughout the period morals in Spain were low, Philip IV, for example, being father to thirty-two illegitimate children. Manners were likewise uncouth. Dances, usually indecent, parties, excursions, picnics, masquerades, and bullfighting enjoyed high favor, and contests with reed spears, lances, and pikes supplanted the tournament. Rough horse play in games was common. People liked to throw small baskets of ashes on each other, to trip each other by means of a rope stretched across the street, to place a lighted rag in a horse's ear, to pin some unseemly object such as an animal's tail to a woman's dress, to throw live snakes or rats in a crowd, to toss dirty water on passers-by, or to hurl egg-shells filled with evil-smelling fluids at each other.

Cities, of course, received little care in the seventeenth century, only Barcelona, Madrid, and Seville being paved. Most streets were filthy, and lighting systems were usually absent. Madrid, like most European cities, had only glimmering candles or lamps placed in front of sacred images. As time passed, however, conditions improved, and lighting, paving, and policing became common in the eighteenth century.

People usually went to bed early and got up early. Their homes were often poor, the average annual rental in the eighteenth century being a little less than eight dollars a month. Walls, usually whitewashed and adorned with religious pictures or brass candle sticks, remained unpapered until near the end of the eighteenth century. The unpolished floors were covered with mats in winter. Chairs were simple. Writing desks were virtually unknown. Candles gave a dim light and braziers gave scant warmth. The French military clothing, thanks to the attitude of Charles III, finally won acceptance. A law in 1766 required the use of the three-cornered cocked hat and a short cape or riding coat. A skirt of silk or velvet, a mantilla, or veil worn over the head, a fan, and a dress comb rising six inches or more above the hair were the chief characteristics of woman's dress.

Of the three classes of Swiss society,—nobles, middle group, and proletariat,—only the first held political rights in Berne. The second class might hold offices abroad; at home they were important in churches and schools, industry and trade. The third class consisted of settlers, country laborers, foreigners, and refugees, in short, the so-called common classes, who labored under grievous disabilities. They could not purchase houses, have their children baptized in the city, nor even have tombstones placed over the graves of their loved ones. They could not go to the markets until after eleven, for their "betters" were allowed the first choice of the produce. Nor could they carry baskets in the archways, for such plebeian baskets might damage the hooped petticoats of aristocratic ladies.

Although Swiss cities gave their subject lands little self-government, at times governors revealed a real anxiety for the welfare of their people, even if they did hate enlightened peasants and new ideas. One Zurich official, greatly admired by Goethe, insisted upon compulsory attendance at church and regarded flogging as the best method of punishment, but with fatherly solicitude he watched over the affairs of the common people, manifesting equal interest in the improvement of their morals and their farms. Often in disguise he visited the printshops in order that he might detect and punish the gamblers and the drunkards, the latter of whom he

shut in a revolving cage until they regained sobriety. Equally interesting was his treatment of quarreling couples whom he locked up together and compelled to eat with the same spoon.

Throughout the period, due in large part to the lack of wealth, life in Scandinavia was simple and frugal. Glass was rare. Hearths took the place of stoves. Coarse carpets for the poor and embroidered carpets of gold and silk for the rich covered the walls. Benches and tables, of heavy oak for the rich, were fastened to the walls. Loose benches and small stools could be moved about the room. Plates were scarce, never being changed for the various courses, and each guest was expected to bring his own fork, knife, and spoon. Clocks were so rare that the grand duke of Muscovy questioned one sent to him by the king of Denmark. Believing that it was an enchanted animal sent to ruin his kingdom he returned it at once.

Swedes ate dinner at ten and enjoyed supper at five. They went to bed about nine or ten and rose early. Their chief wearing apparel was woolen. Holiday dresses were expensive, but enduring, the same petticoat often serving mother, daughter, and granddaughter for gala occasions. The women combed their hair back and wore tight-fitting garments with high stiff ruffles. The men wore the Spanish costume. Poor people used torches of dry wood, wealthy people used tallow candles, and the churches used wax lights. Broad beds, few in number, were fastened to the wall, and even in the homes of princes the host and several guests might sleep on the same bed. The roads not being adapted to carriages most journeys were made on horseback. In case of rain, wax-cloth cloaks protected the princesses.

SELECTED REFERENCES

- Ashley, W. J. *An Introduction to English Economic History and Theory* (London, Longmans, Green and Company, 1920) Vol. I, Part II, Chapter V.
- Bland, A. E., Brown, P. A., and Tawney, R. H. *English Economic History. Select Documents* (London, G. Bell and Sons, 1915) Part II, Section IV and Part III, Section V.
- Bowden, Witt. *Industrial Society in England Towards the End of the Eighteenth Century* (New York, The Macmillan Company, 1925) Chapter IV.

Byrne, Muriel St. Clare. *Elizabethan Life in Town and Country* (London, Methuen and Company, Ltd., 1925) Chapter IX.

Ducros, Louis (W. de Geyer Translation). *French Society in the Eighteenth Century* (London, G. Bell and Sons, 1926) Chapters V and VI.

See, Henri E. (E. H. Zeydel Translation). *Economic and Social Conditions in France during the Eighteenth Century* (New York, Alfred A. Knopf, 1927) Chapters IX and XI-XIII.

Stone, Gibert A. *A History of Labour* (New York, The Macmillan Company, 1922) Chapter V.

Unwin, George. *Industrial Organization in the Sixteenth and Seventeenth Centuries* (Oxford, The Clarendon Press, 1904) Chapter VIII

CHAPTER XV.

AGRICULTURE

Condition of the Peasants in the Balkans.—Throughout the Balkans agriculture, with the emphasis upon horses and cattle, sheep and hogs, rather than on grains, was the most important industry. It was controlled by the nobles who formed a privileged class, virtually exempt from all taxes. In Rumania the nobles could exact from the peasants the corvee and a tithe of the crops. In Bulgaria the peasants were bound to the soil. Brigandage, as elsewhere in eastern Europe, was common. At times these robbers would enter the service of the government and would demand "tooth money" from the peasants in whose villages they were quartered because of the "wear and tear of their teeth on the hard bread of the peasants."

Conditions in Servia differed little from conditions in the other countries in the Balkans. To kill a peasant was a slight offense in comparison with the killing of a noble. To pluck out a chieftain's beard meant the loss of a hand, but to pluck out the beard of a common man merely drew a small fine. When Servia fell to the Turks in 1459, conditions became worse. The peasants were forced to work in the meadows of the Sultan near Constantinople. No Serb was permitted to carry a weapon. The Turks seized horses and every five years a tribute of boys for their famous guards. In time Greek officials took control of the Serb Church, and as in Bulgaria, church officials oppressed the struggling peasants, levying heavy sums for every priest inducted and imposing a chimney-tax on every home. To cap all wrongs no Serb could avenge a Turkish insult.

Montenegro was a mountainous region with little fertile

soil. The wealth of timber was early exploited and the people depended largely for food upon hardy grains, pigs, and dairy products. Bosnia was fertile and well-wooded, the forests being well-filled with game. Herds of swine make their living in the oak forests. The grains, some fruits, and tobacco were produced in both Bosnia and Herzegovina by the Christian peasants who were compelled to toil for the Moslem conquerors, but more as day laborers than as serfs.

The Turks introduced their feudal system into Thessaly in 1397, a large number of Seljuk Turks in both Thessaly and Macedonia receiving landed estates. Serfs of western Europe, however, probably received worse treatment than did the mass of agricultural workers under Turkish domination. The Greek peasants had been gaining ground rather steadily because of the decay of Moslem feudalism and military organization, and by the end of the eighteenth century they had shown a remarkable change for the better. Grains, fruits, pigs, sheep, goats, and cattle were common.

Italian Peasants.—During the early part of the modern period the wars of Francis I of France and Charles I of Spain naturally had a bad effect on agricultural and industrial conditions in Italy. Throughout the period, too, foreign conquerors preyed to some extent upon Italian industry.

Goethe gives an interesting picture of farming, perhaps too idealistic, in Sicily under the date of April 26, 1787:

The succession of their crops is beans, wheat, and tumenia. By beans I mean the marsh bean. Their wheat is wonderfully fine. Tumenia, of which the name is derived from bimenia or trimenia, is a glorious gift of Ceres. It is a species of spring wheat, which is matured within three months. It is sown at different times, from the first of January to June, so that for a certain period there is always a crop ripe. It requires neither much rain nor great warmth. At first it has a very delicate leaf, but in its growth it soon overtakes the wheat, and at last is very strong. Wheat is sown in October and November, and ripens in June. The barley sown in November is ripe by the first of June. Near the coast it ripens sooner, but on the mountains more slowly.

The flax is already ripe...

On the uncultivated hills grows a rich sanfoin. It is farmed out, and then carried into the town in small bundles. In the same way the oats which are weeded out of the wheat, are done up for sale.

For the sake of irrigation, they make very pretty divisions with edgings in the plots where they plant their cabbages.

The figs have put forth all their leaves, and the fruit is set. They are generally ripe by midsummer, when the tree sets its fruit again. The al-

mond trees are well loaded; a sheltered carob tree has produced numberless pods. The grapes for the Table are trained on arbours supported by high props. Melons set in March and ripen by June. Among the ruins of Jupiter's temple they thrive vigorously without a trace of moisture.¹

Two days later Goethe added:

On our whole tour, we have seen but few horses; ploughing is carried on with oxen; and a law exists which forbids the killing of cows and calves. Goats, asses, and mules, we met in abundance. The horses are mostly dapple grey, with black feet and manes; the stables are very splendid, with well-paved and vaulted stalls. For beans and flax the land is dressed with dung; the other crops are then grown after this early one has been gathered in. Green barley in the ear, done up in bundles, and red clover in like fashion, are offered for sale to the traveller as he goes along.²

Apparently at the close of the eighteenth century the peasants of Italy were more comfortable than those of any of the other European countries with the exception of England and Switzerland. Especially did some travellers regard the peasants on church lands as fortunate. Concerning those peasants John Moore wrote:

...But although the Italian peasantry are by no means in the affluent, independent situation of the peasantry of Switzerland, and the tenantry of England, yet they are not subjected to the same oppressions with those of Germany nor are they so poor as those of France.

A great part of the lands in Italy belong to convents; and I have observed and have been assured by those who have the best opportunities of knowing, that the tenants of these communities are happier, and live more at their ease, than those of a great part of the nobility. The revenues of convents are usually well managed, and never allowed to be squandered away by the folly or extravagance of any of its members...³

Condition of the Iberian Peasants.—The poor condition of Spanish peasants appears in the cave houses and adobe huts with straw roofs common in Castile. Houses in Galicia had walls of unpolished stone, often without cement, and reaching little higher than a man's head. Great slabs of rock formed the roofs, and a hole in the roof served for the entrance of light and the exit of smoke. Family and domestic animals alike made use of the wretched hovels. In Navarre and Valencia the homes were better and cleaner but glass windows,

¹ Morrison, A. J. W. and Nisbet, Charles (Translators). *Goethe's Travels in Italy: Together with his Second Residence in Rome and Fragments on Italy* (George Bell and Sons, London, 1892) p. 268.

² *Ibid.*, p. 273.

³ *A Review of Society and Manners in Italy* (J. Smith, Paris, 1803) Vol. II, pp. 326-328.

furniture, and chimneys seemed lacking in most parts of Spain. The repugnance to labor likewise showed the wretched state of the country, an army of 150,000 vagabonds being common in eighteenth-century Spain. Another factor limiting agriculture was the concentration of lands in the hands of nobles and clergy.

Charles III, in an effort to improve agricultural conditions, prohibited the arbitrary dispossession of tenants and even ejectments unless the owner agreed to reside on and to cultivate his lands. The king likewise sought to secure reforestation and attacked the privileges of the Mesta, a monopolistic organization of the owners of fine-wooled sheep. His successor in 1795 swept away the separate jurisdiction of the Mesta but relief was slight, for legislation did not authorize the enclosure of arable land.

In the northern part of Portugal agriculture was fairly prosperous and the peasants held tenaciously to their lands. Peasant proprietorship and the scarcity of African types were characteristic. In the southern provinces, where slaves were used in large numbers, manual labor came to be regarded as dishonorable and the peasants sold their freeholds and flocked to the towns. Small holdings were consolidated into immense estates, poorly cultivated by slaves, and somewhat similar to the *latifundia* of Rome.

French Peasantry.—Most of the French peasants, during and following the wars of Louis XIV, lived in abject misery. The Norman peasants lived partly upon oats and wore skins. In Beauce, which supplied grain for Paris, the farmers begged during part of the year, being forced at times to make bread from ferns. In many provinces meat was virtually unknown. One contemporary writer even declared that three-fourths of the people of France did not consume on the average more than a pound of meat apiece for each month. Vauban insisted that not more than ten thousand families were in comfortable circumstances, and La Bruyere wrote:

One sees certain ferocious animals, male and female, scattered over the country, black, livid, and burned by the sun, attached to the land which they dig and work upon with incomprehensible obstinacy. They have an articulate voice, and when they rise on their feet they exhibit a human face; and in fact they are men. At night they retire in their dens, where

they live upon black bread, water and roots. They spare other men the trouble of sowing, cultivating, and gathering articles of food.⁴

In his *Travels in France*, 1787-1789, Arthur Young in general gave a gloomy picture of the French peasant life. He declared that girls and women wore neither stockings nor shoes. He said that they plowed and filled dung carts whereas in England they did little in the fields "except to glean and make hay." He commented: "And the ploughmen at their work have neither sabots nor feet to their stockings." One passage dated September 5, 1788, follows:

To Montauben. The poor people seem poor indeed; the children terribly ragged, if possible worse clad than with no cloaths at all; as to shoes and stockings they are luxuries. A beautiful girl of six or seven years playing with a stick, and smiling under such a bundle of rags as made my heart ache to see her; they did not beg, and when I gave them anything seemed more surprised than obliged. One third of what I have seen of this province seems uncultivated, and nearly all of it in misery...⁵

Another passage, particularly somber, condemns the government:

The 12th (July, 1789). Walking up a long hill, to ease my mare, I was joined by a poor woman, who complained of the times, and that it was a sad country; demanding her reasons she said her husband had but a morsel of land, one cow and a poor little horse, yet they had a *franchar* (42 lbs.) of wheat, and three chickens to pay as quit rent to one Seigneur; and four *franchar* of oats, one chicken and IF to pay to another; besides very heavy tailles and other taxes. She had seven children, and the cow's milk helped to make the soup. But why, instead of a horse, do you not keep another cow? Oh, her husband could not carry his produce so well without a horse; and asses are little used in the country. It was said, at present, that *something was to be done by some great folks for such poor ones, but she did not know who nor how, but God send us better, car les tailles et les droits nous ecrasent*.—This woman, at no great distance might have been sixty or seventy, her figure was so bent, and her face so furrowed and hardened by labour, but she said she was only twenty-eight...⁶

To his lord, we might note in summary form, the serf usually gave three days of labor weekly and some grain and poultry. The freemen paid a heavy quitrent in place of services, double rent in case of the death of the peasant, and

⁴ See Drury, Victor. *A History of France* (Thomas Y. Crowell Company, New York, 1920) p. 515.

⁵ *Travels in France* (Miss Bethan-Edwards Edition, G. Bell and Sons, London; 1906) p. 125.

⁶ *Ibid.*, pp. 197, 198.

a fifth of the price if he sold the land. Each year to the Church he paid a twelfth to a fifteenth of the gross produce of his land. To the king he paid heavy land taxes, poll taxes, an income tax of about a twentieth, the corvée, which often meant several weeks of work a year, and the salt gabelle. Each person in order that the gabelle, most notorious of all taxes, might be collected was sometimes compelled to buy seven pounds of salt at the government salt works at a price perhaps ten times its value.

Although the condition generally painted for French workers is one of unrelieved gloom, some travellers and historians record other views. Walpole in 1765 thought the condition wonderfully improved even within his own time. Dr. Rigby "was in raptures with the aspect of France." Even Arthur Young admitted that in the regions of vine, maize, and olives, and in certain northern provinces France had an agriculture equal to that of England. The famous traveller thus commented with apparent approval on the threshing methods of Languedoc:

...The corn is all roughly stacked around a dry firm spot, where great numbers of mules and horses are driven on a trot around a centre, a woman holding the reins, and another or a girl or two, with whips drive; the men supply and clear the floor; other parties are dressing, by throwing the corn into the air for the wind to blow away the chaff. Every soul is employed and with such an air of cheerfulness, that the people seem as well pleased with their labour as the farmer himself with his great heaps of wheat. The scene is uncommonly animated and joyous...⁷

Although the peasant homes generally were poor, the families often had large quantities of clothes and linen and the peasant women managed to obtain such trinkets as a cross and chain of silver, sometimes of gold. If Professor F. C. Montague is correct: "From the close of the Seven Years' War to the outbreak of the Revolution France was growing in population, riches, and enlightenment."⁸ On the night of August 4, 1789 manorial courts were suppressed and the exclusive rights of the lords to keep pigeon-houses and dove cotes was abolished. Thereafter the peasants were allowed

⁷ *Ibid.*, p. 54

⁸ See Ward, A. W., Prothero, G. W., and Leathes, Stanley, Editors *The Cambridge Modern History* (The University Press, Cambridge, 1904) Vol. VIII, p. 63

to drive off or to kill any game that threatened the growing crops. On July 17, 1793, the last survivals of the feudal system disappeared. Gone now was the *corvée*, or the lord's right to the labor tax. A thing of the past, too, was the *taille*, a tax levied on movables or of relief paid on the inheritance of manor rights. Discarded, also, was the *banalite*, or the right of the lord in the monopoly of wine-presses, mills, ovens, and weights and measures. Erased from the long list of abuses, moreover, was the *gîte*, or right of entertainment, and even of some military service. And wiped out, finally, were the iniquities of the *gabelle*, or salt tax.

English Peasants.—Although the English peasants virtually had won their freedom by the beginning of the sixteenth century, they suffered because of rising rents and enclosures. The early enclosures were made primarily for pasturage purposes, but the late enclosures were made for improved agriculture. Peasants driven off the land aroused the sympathy of Sir Thomas Moore who wrote in his *Utopia*:

Therefore that on covetous and unsatiable cormaraunte and very plage of his natyve countrey maye compass aboute and inclose many thousand akers of grounde together within one pale or hedge, the husbandmen be thrust oute of their owne, or els either by coveyne and fraude or by violent oppression they be put besydes it, or by wronges and injuries thei be so weried, that they be compelled to sell all: by one means therefore or by other, either by hooke or crooke, they must needes departe awaye, poore, selye, wretched soules, men, women, husbands, wives, fatherless children, widows, wofull mothers, with their young babes, and their whole household small in substance, and much in numbere, as husbandrys requireth many handes. Awaye thei trudge, I say, out of their knowen and accustomed houses, fyndynge no place to rest in.

All their householdstuffe, whiche, is very little woorth, though it myght well abide the sale; yet beeynge sodainely thruste oute they be constrained to sell it for a thing of nought. And when they have wandered abroad tyll they be spent, what can they then els doo but steale and then justly pardy be hanged, or els go about a beggyng. And yet then also be caste in prison as vagaboundes, because they go aboute and worke not: Whom no man wyl set a worke though thei never willingly profe themselves thereto. For one Shephearde or Hearsman is yrought to eat up that ground with cattel, to occupying whereof aboute husbandrye many hands were requisite. And this is also the cause why victualles be now in many places dearer.

Yea, besides this the prize of wolfe is so rysen, that poore folkes which were wont to work it, and make cloth thereof, be nowe hable to bye none at all. And by thys means veryemanye be forced to forsake worke, and to give themselves to idleness...⁹

⁹ See *The Outline of Knowledge* (The Kingsport Press, Kingsport, Tennessee, 1924) Vol. XVI, p. 152.

The suffering of these lower agricultural groups through the enclosure of their common lands provoked minor risings. One known as the Pilgrimage of Grace occurred in 1536. It was undertaken not only for agricultural purposes, but perhaps primarily with the object of restoring the old faith and of driving away Henry VIII's advisers. The Duke of Norfolk by promising redress of grievances, which they interpreted to mean lower rents and restrictions on enclosures, persuaded the pilgrims to return home peaceably. Fresh revolts the next year, nevertheless, were used by Henry as a pretext for violating his promise and the peasant leaders were ferreted out and executed. In 1549 in Norfolk, where great enclosures had been made, Ket, the tanner, led about sixteen thousand tenants and laborers who demanded the return to commons of land lately enclosed and the reform of other local abuses. The Earl of Warwick routed the peasants and hanged Ket. Cowed by this treatment, farmers and peasants submitted. Yet still other risings, as in Buckinghamshire, occurred in 1552.

Because of the evils pictured vividly in numerous petitions, in the *Utopia* and in other contemporary literature, and in scattered uprisings attempts were made to stop enclosures. As early as 1488 the turning of tillage land into pasture land was prohibited, and in 1514 this law was reenacted and owners of houses were required to keep those houses in repair. Three years later a government commission to investigate enclosures was appointed. In 1518 by Cardinal Wolsey's proclamation all men who had enclosed land since 1509 were required to throw open the land or to prove that its enclosure had been for the public benefit. In 1534 earlier laws were reenacted and people holding rented land were prohibited from keeping more than 2400 sheep. Fourteen years later a new commission with authority to investigate conditions, to start prosecutions, and to recommend new laws was appointed. In 1552 an enforcement law was passed and in 1554 and 1562 old laws were reenacted. Although in 1593 the last law was repealed, five years later others were passed and later extended. In 1624, nevertheless, defeat was confessed and all laws on enclosures were repealed.

Whether enclosures were for farming or pasturage, the

effect was likely to be harmful to the small holders. The person dispossessed, of course, received compensation, but he was injured through the loss of his by-industry, especially if engaged in manufacturing. The position of the small farmer was depressed still further by the custom of primogeniture, heavy poor rates, falling wages, and rising rents. Even legislation seemed to oppress him, for the Statute of Frauds of 1677 allowed all holdings not created by deed to be treated as "tenancies at will only." Throughout the period, consequently, many small farmers continued to suffer.

Condition of Peasants in Northwestern Europe.—Although the Dutch peasants had suffered a severe defeat in the battle of Cassel in 1328 and had been forced to pay perpetual rents for three centuries, they had prospered for the most part and had developed high moral characteristics. The Swedish peasants likewise seem to have been fairly prosperous. Gustavus Vasa, who ascended the throne in 1523, was especially favorable to agriculture. He urged his people, "Love and honour agriculture."

Such was not the case in Denmark and Norway. The cruelty of rulers and nobles combined with the parsimony of nature to handicap the peasant. The influence of the nobles was so strong that neither clergy nor burghers nor peasants could write an application to the king unless that application was signed by a noble. A Danish or a Norwegian noble, in fact, could order a peasant scourged or beheaded as he saw fit. In description of late seventeenth and early eighteenth-century Denmark Lord Molesworth declared:

The common people in general, throughout all Denmark, live very mean; the food of the burghers and citizens being rye bread, salt-fish, stock fish, excellent bacon, and very bad cheese; and the peasants live on roots, white meats, and rye-bread; seldom tasting fresh fish, and scarce ever flesh, unless on some extraordinary festivals, as on St. Martin's eve, when each family in Denmark never fails to make merry, and to have a roasted goose for supper. However, the tables of the rich are usually well-furnished; but the meat is generally lean. Wether mutton is very scarce and seldom good. Here are no pheasants, woodcocks, rabbits, or fallow-deer; but you may sometimes meet with a small roe-buck in the market; but it is also generally lean; the hares are however good. Sea fish is scarce, and not good; but the river fish makes amends, here being most excellent carp, perch, and craw-fish. One cannot expect extraordinary fruit so far north, yet the gentry do not want such as are very tolerable; and some of the

nobility have melons, grapes, peaches, and all sorts of salads very early, and in great perfection.¹⁰

During the reign of Christian V of Denmark, about the close of the seventeenth century, the peasants could not produce enough foodstuffs to feed the country. Christian VI, who ascended the throne about 1730, gave early promise of helping the peasants. He dropped the militia and allowed the peasants to reside anywhere they desired. Before long, however, he restored the militia and returned the peasants to the control of the domineering nobles. A law of the next reign required that every country lad from the time he completed his fourth year be required to stay in his native country. Many boys, despite cruel punishment, ran away, and the nobles were compelled to procure laborers from the alms houses. The crown also caused additional suffering by selling large estates, for the peasants were seldom able to buy the lands. New manors, therefore, came into existence and the peasants obtained less favorable terms from the new owners than they had secured from the crown.

Condition of the Peasants in Central Europe.—Swiss peasants seem to have been well treated and agriculture successful considering the nature of the country. Yet discontent at conditions or a desire for better treatment manifested itself in occasional revolts. One of these unsuccessful uprisings occurred in 1653. The peasants demanded the restoration of their old liberties, mitigation of excessive taxes, and the general betterment of their economic interests. As time passed conditions improved somewhat and John Moore compared the Swiss peasants in well-being with the favored peasants of England and northern Italy.

During the fifteenth century the condition of the Bohemian peasants began to improve, but the failure of their alliance with the knights against the nobles in the first quarter of the sixteenth century depressed them. Toward the close of the eighteenth century Joseph II improved their miserable condition. Freed peasants were allowed to move anywhere they cared to and to choose any trade or study desired despite

¹⁰ Smart, Goldsmith, and Johnson. *The World Displayed, or a Curious Collection of Voyages and Travels Selected and Compiled from the Writers of all Nations* (Dobell-bower, Key, and Simpson, Philadelphia, 1795) Vol V, pp. 483, 484.

the wishes of their former masters. The condition of the peasants, nevertheless, can not be regarded as satisfactory. John Moore gave the following criticism:

If the estates in Bohemia were let to freeman at a reasonable rent, freedom and property would excite a spirit of industry among these indolent people. They would then work every day with cheerfulness and goodwill; and I am convinced the landlord's revenues would increase daily. In consequence of this, the peasants would, in all probability, continue as much attached to the ground from choice, as they are at present from necessity.¹¹

Perhaps the peasants of Hungary were as cruelly treated as those of any European country. The Turks near the border of Hungary had formed the habit of robbing the peasants. The remainder of the peasants fared no better at the hands of their lords who were always in need of money. The peasants paid all the taxes—tithes for the clergy and dues for their lords and masters. The peasants, moreover, were compelled to buy exemption from military service. The masters were judges and the masters' tribunals were as biased against them as was a hen-pecked jurymen against the minister defendant who had performed his marriage ceremony.

The crusade against the Turks had been called by Bishop Bakacs at a time when there was much work to be done in the fields. Most of the nobles, consequently, opposed it. George Dozsa, a veritable Milo, was named commander. Some of his men wanted to fight the nobles. Bakacs ordered Dozsa to march against the Turks and when the leader hesitated the bishop placed him under the ecclesiastical ban. Dozsa then attacked the nobles, destroying castles and massacring nobles. Dozsa, however, soon made the mistake of laying siege to Temesvar where he was defeated. Gregory, his brother, was beheaded by the nobles. The authorities then threw the remaining leaders into prison and deprived them of food for a fortnight. Nine were still alive at the end of that time. Dozsa was singled out for excruciating torture. He was placed on a red-hot throne, crowned with a red-hot crown, and forced to hold a red-hot scepter. Not a murmur of pain escaped him during this dreadful torture. When his famished fellow-prisoners rushed upon him and tore the charred flesh from

¹¹ *A View of Society in France, Switzerland, and Germany*, Vol. I, pp. 354, 355.

his body to satisfy their hunger, he did exclaim: "These hounds are my own training." Fifty thousand lives were taken by the nobles and doubtless all of the peasants would have been killed had other workers been available.¹²

In their twelve articles, appearing about a decade after the Hungarian revolt, the oppressed German peasants demanded needed reforms, namely, the choosing of the pastors by the people, the abolition of the tithe, the loosening of the bonds of serfdom, the reform of hunting and fishing rights so that game would not be allowed to destroy the crops, the abolition of the exclusive rights of lords to the wood, the lightening of excessive services, the moderation of rents, the simplification of laws, the stopping of enclosures, the abolition of the heriot, and the testing of all claims by the Scriptures.

Luther, at first advocating compromise, soon came over to the side of the nobles, urging the utmost violence and cruelty in putting down the revolt. He charged the peasants with rebellion against God, with robbing and pillaging of monasteries and castles, and with cloaking "their frightful and revolting sins with the Gospel" and compelling others to join them in "such abominations." Thus he told the princes they could not be too cruel.¹³

The revolt, occasioned by the tyranny of a petty nobleman, began in the south near the Swiss border in July and August, 1524, at a time when most of Germany's soldiers were in Italy. It spread north along the Rhine into Alsace and the heart of Germany, but, though it penetrated Tyrol in the southeast, it did not move far to the east. The peasants stormed, sacked, and destroyed monasteries and castles; they seized military supplies and court records; they murdered women and monks, knights and nobles; and they, women, as well as men, drank until they fell senseless. In May, 1525, the revolt was at its zenith and by December it was practically over save for Tyrol where it lasted until 1528.

The revolt had no recognized leader, but Hans Muller, who for eleven months commanded the peasants near the Swiss border, was the nearest approach to a general leader. He at-

¹² See Vambery, Arminius. *Hungary in Ancient, Mediaeval, and Modern Times* (T. Fisher Unwin, London, 1890) pp. 269-274.

¹³ See Robinson, J. H. *Readings in European History*, Vol. II, pp. 84-108.

tracted followers at first by hundreds but soon by thousands. Among the knights who joined the peasants Gotz von Berlichingen was the most famous. Among the preacher-captains chief was Thomas Munzer who believed in a communistic society in which people held property in common and were advised by priests. Munzer's overthrow at Frankenhausen, when about five thousand of his followers were killed, and the defeat of Francis I by Charles V at Pavia were turning points in the struggle, for more troops were now available. In the spring of 1525 nobles and knights with their hired soldiers took the field. One by one they captured the towns and defeated the peasants, executing most of the outstanding leaders. In place of hundreds they massacred thousands; in place of beheading prisoners as peasants had done they burned them. All told perhaps a hundred thousand lives were lost and heavy burdens were placed upon the peasants.

In the last decades of the Middle Ages serfdom was widely prevalent in southwestern Germany, the land being held in small quantities and a man perhaps owing services to a half dozen or more proprietors at the same time. In the fifteenth and sixteenth centuries, nevertheless, many kinds of services had been commuted to money payments; sometimes dues, as the marriage due in Bavaria, had been abolished; and serfdom itself, moreover, tended to decline. The Thirty Years' War hastened the emancipation of serfs, and after 1650, except for scattered sections, serfdom died out, even if it was not definitely abolished in any state until 1783 when Baden took the lead.

The estates in northwestern Germany,—Lower Saxony, Westphalia, and neighboring territories,—in contrast to the states of the Southwest, were large. The region at one time was a part of the Frankish empire, and in it, the meierrecht, a large manorial estate, developed. By the fourteenth century, however, most of the serfs, and without legal enactments, were emancipated. Farms were consolidated and then were turned over to peasant tenants, who had accumulated the necessary capital.

In eastern Germany at the close of the fifteenth century, as in Russia, the peasants were virtually free,—free to marry,

free to leave the estate, and free from menial services. Serfdom, nevertheless, eventually triumphed. Peasants lost their immunities and were bound to the soil, being compelled to pay rents and services somewhat similar to those of tenth-century France or England. During the Thirty Years' War the peasants were further depressed, the "household services" of the children, formerly paid for, being required as a matter of course. If the peasants tried to win freedom by going to the towns, law interfered. The Prussian government, though by the close of the century most of the crown serfs had been liberated, tried with little effect to secure their relief. Not until the upheaval produced by the Napoleonic struggles, 1808, and following were the Prussian serfs formally liberated by decree.

Condition of Polish and Russian Peasants.—The Polish burghers and peasants, until the early part of the fifteenth century, were in two groups, those personally free but compelled to give certain services and those who were the property of their masters and without rights. The two classes gradually merged into one bound to the soil. A peasant could not commence judicial proceedings against a lord; he must find a noble who would act for him. A fine was set in 1347 for killing a peasant, the value of a peasant being placed at ten marks. Not until 1768 was the murder of a peasant made a capital crime, and even then the culprit usually escaped. The labor requirement, moreover, was exceptionally high, five days work in seven. The women were even more criminally treated than the men. All were compelled to work in grain, timber, and cattle industries.

Until well toward the close of the sixteenth century the Russian peasants were legally free, but thereafter they tended toward serfdom, for the peasants who were under the influence of nobles and churches were usually unable to keep out of financial difficulties with their lords. At the very beginning they generally went into debt by taking over stock with the farm, and apparently the longer they remained on the farms the worse conditions became. The growth of the government with its financial needs tended to fasten them on these estates, a system of collective liability which regarded the farms as

the chief taxable income developing. The competition between landowners, who tried to attract workers from the farms of less powerful neighbors, was still another factor in the establishment of serfdom. In 1601 and 1606 the government began labor legislation intended to prohibit landowners from depriving neighbors of their agricultural laborers. Peter the Great systematized and completed this movement, securing a statement or register of the quantity, value, and ownership of real estate for the apportionment of taxes. He obtained, too, a census of the rural population. Peter's efforts resulted in the fixity of peasant tenures and the subjection of all the peasants, crystallized into a separate class, to the landowners.

The oppressed peasants lived in villages, often designated as *mir*s. The *mir* dominated the inner political districts of Great Russia, but was absent from the Ukraine and White Russia. It was a street village much larger than the typical manorial village of western Europe, for it held from three to five thousand inhabitants. Back of the dwelling lot were the garden and the field, arable and common pasture. New families took their places at the end of the row. The arable land was divided into fields and the fields in turn were divided into strips. The *mir* system was not so rigid as the Germanic system, for it took into account the size of the family and the laboring force. The law figured on a twelve-year interval for redivisions, but the new divisions sometimes took place within one to six years. The *nadyal*, or land right, belonged to the village, but the factory worker whose ancestors had left the *mir* generations earlier could come back and claim land. No one, of course, could leave the *mir* without the consent of the village.

Theoretically the *mir* was a democratic unit. Actually it was not. The periodic division might be demanded, but the majority necessary for the redistribution was often lacking. Every family which had increased more rapidly than the average would want a redivision. Yet those families as well as others would go in debt to the village bourgeoisie, or kulaks, in order to buy provisions. The rich peasants by money-lending thus dominated, favoring a redivision if they wanted their

debtors to acquire more land and opposing it if they wanted to keep them poor.¹⁴

In 1762 the lords were freed from compulsory military service and the peasants claimed that they were included in the emancipation and were being deprived of the Tsar's gift. Prior to 1773 only sporadic revolts, because of oppression, had occurred, but in that year Pugachev assumed the leadership of the peasants. He had seen some military service in Prussia and in the Turkish War, 1769-1774. In 1773 he declared himself the murdered Peter III, who had been a strong opponent of Catherine II, and he soon won followers by promising to redress grievances, to give complete freedom to the Cossacks, and to banish Catherine to a monastery. The government at first regarded the rising with contempt, offering at the beginning of October, 1773, only five hundred rubles for Pugachev's head, but by the close of November the offer had been raised to twenty-eight thousand. By the beginning of 1774 all the forts on the Volga and the Ural had been taken by Pugachev, his forces were being augmented daily, and restlessness was becoming prevalent in central Russia. In a little while Pugachev captured Kazan, where he reduced most of the churches and monasteries and killed all who refused to join him. General Peter Panin unavailing led an army against the peasants. In August, 1774, nevertheless, General Mikhelson crushed the peasants, who lost ten thousand in killed and prisoners. The peasant cause thereafter declined, the government officers showing great brutality. Pugachev, doubtless intimidated by such losses and such brutality, tried to escape to the Urals, but his Cossacks delivered him to the government, which executed him at Moscow, January 11, 1775.

The Beginnings of an Agricultural Revolution.—Although the Dutch did not have enough land to grow grain for a densely peopled country, they were the best farmers of the period, being especially famous for dairying and market gardening. They early turned their attention to artificial grasses, and discovered the use of clover, lucerne, and red and white sainfoin, either naturalizing or improving them. Their cattle, consequently, were the finest in Europe. In time, too, they

¹⁴ See Weber, Max. *General Economic History*, pp. 17, 18.

transferred winter roots from their gardens to their fields. By the assiduous cultivation of potatoes and turnips and similar products they made the same area of land able to support three times as many people and greatly decreased the danger of famines. By their insistence upon a fresh diet they, moreover, aided in the banishment of leprosy and scurvy.

These improvements, of course, gradually reached other countries. Slowly but surely the Dutch taught the European nations how to keep cattle in good health through the winter by the use of wholesome feed. To England and to other countries Flemish and Dutch refugees carried cabbage, carrots, celery, hay, and other crops, probably introducing hops into England about 1524. Their dairy products, their improved cattle, and their scientific methods likewise found their way into England and other countries. In fact, Thorold Rogers concludes: "The population of England was more than doubled in the seventeenth century, by adopting the agricultural inventions of the Dutch."¹⁵

When Henry IV ascended the French throne, he manifested a strong interest in industry, commerce, and agriculture. He wanted all his people prosperous enough to have a fowl every Sunday, and Sully, his famous minister, was even more interested in agriculture than was Henry. Twice, in 1596 and 1598, Sully journeyed through the provinces in order to study the needs of the country. In 1600 he gave the peasants a fresh start by cancelling the arrears of the *tailles*, about twenty million livres, and by reducing the land tax 1,800,000 livres. The next year he took a far-sighted, but revolutionary, step by allowing the exportation of grain. Sully also encouraged the farmers by the draining of marshes.

Sully and Henry, moreover, encouraged scientific farming. Oliver de Serres wrote a book in which he gave important rules for farming and he put those rules in effect upon his own model farm. Henry IV thought so highly of the book that he had a certain number of pages read to him each day after dinner. Others, too, read the book and many followed its directions. Farming, therefore, made rapid progress and until Louis XIV's wars ruined agriculture the French farmers led

¹⁵ See his *Holland* (T. Fisher Unwin, London, 1897) pp. 217-220.

Europe. From 1598 to 1626, in fact, there was no year with a crop failure.

Colbert, too, encouraged farming. He lowered the direct tax on the peasants by substituting indirect taxes or customs duties, which would to some extent affect all people; he forbade the seizure of a farmer's tools for debt; he promoted the breeding of better horses and cattle; he rebuilt roads and planned other means of communication, the Languedoc Canal which joins the Mediterranean and the Atlantic by way of the Garonne River being constructed under his direction; and he also equalized as far as possible the duties on agricultural products passing from province to province.

The Revolution of 1789, following a period of decline, helped agriculture by abolishing serfdom and by promoting the diffusion of land ownership. Arthur Young believed that in 1787 one-third of the land was cultivated by peasant owners. At the outbreak of the Revolution other authorities estimate that three-fifths of the three million proprietors could be classified as small holders. This tendency toward a wider diffusion of land-holding was stimulated greatly by the Revolution, for the lands confiscated from the Church and the emigrant nobles were thrown on the markets. Prices were reasonable, payments covered a period of twelve or more years, and a clear title without obligations went to the new holders. Legislation in 1790 required that lands be sold in small tracts in order that "happy proprietors" might grow in number. Peasants often combined to buy large tracts which they divided among themselves as they saw fit until that practice was prohibited in 1793. From 1790 to 1795, nevertheless, as a result of the land divisions, the number of small proprietors increased sharply.

Switzerland, like other mountainous countries, had a limited amount of good land. Unlike many of them, however, she utilized her land well. By the close of the eighteenth century agricultural societies and agricultural experiments had become common. Clover and other artificial grasses had been introduced, and the Swiss methods of pasturage and manuring became models for foreign farmers. Cattle, goats, and sheep, of course, thrived and dairying developed. Lands, too,

formerly regarded as unfruitful, were made remarkable for their fruitfulness, and farmers of grain replaced in places the shepherds. William Coxe frequently commented on the industry of the people. For example, while speaking of the poor soil characteristic of most sections, he added: "But the industry of the inhabitants amply compensates for any disadvantages of soil."¹⁶ In a longer statement he declared in part:

With respect to agriculture; there are, perhaps, few countries wherein the advantageous effects of unwearied and persevering industry are more remarkably conspicuous. In travelling over the mountainous part of Switzerland, I was struck with admiration and astonishment, to observe rocks that were formerly barren, now planted with vines or abounding in rich pasture; and at marking the traces of the plough along the sides of the steepest declivities. In a word, the inhabitants seem to have surmounted every obstruction of soil, situation, and climate; and to have spread fertility over various spots, which nature seemed to have consigned to everlasting barrenness. In fine, a general simplicity of manners, an open and unaffected frankness, together with an invincible spirit of freedom, may justly be mentioned in the number of those peculiar qualities which dignify the public character of this people; and distinguish them with honour among the nations of Europe.¹⁷

Concerning the country and its cultivation John Moore likewise added his admiring tribute:

No country in the world can be more agreeable to travellers during the summer than Switzerland; for, besides the commodious roads and comfortable inns, some of the most beautiful objects of nature, woods, mountains, lakes, intermingled with fertile fields, vineyards, and scenes of the most perfect cultivation are here presented to the eye in greater variety, and on a larger scale, than in any other country.¹⁸

Agricultural Improvements in England.—The Romans had reclaimed partially the region of the Wash, but at the time of *Domesday* it was a mere marsh. In 1436 and at other times efforts were made to reclaim the land anew, but only in 1634 was the first successful effort made by the Earl of Bedford. His Dutch engineer, Vermuyden, already had attracted attention and in 1629 had received knighthood for his work in Hatfield Chase three years earlier. In 1649 the new undertaking was completed.

During the seventeenth and eighteenth centuries the price

¹⁶ *Travels in Switzerland in a Series of Letters to William Melmoth* (Dublin, 1789) Vol. I, p. 25.

¹⁷ *Ibid.*, Vol. II, p. 159.

¹⁸ *A View of Society and Manners in France, Switzerland, and Germany*, Vol. I, p. 273.

of grain and rent rose rather steadily. From 1401 to 1510 the average price of grain was a little less than six shillings a quarter, but from 1603 to 1702 corn averaged forty-one shillings a quarter. In the fifteenth century rent was about six pence an acre, but it rose as high as six shillings in the seventeenth, more than doubling between 1600 and 1699, and the increase continued. The dukes of Rutland, indulgent landlords, rented land in 1692 at a little less than four shillings an acre, but in 1799 at more than nineteen shillings an acre. The average rental in 1775 was perhaps ten shillings. Acre yields for the period but with fluctuations likewise increased. In the eighteenth century the yield was four times that of the thirteenth century.

New crops, as for example, hops, began to be farmed and many fruits and vegetables, formerly confined to manor house gardens, received attention from the tenant farmers. The greatest expansion in such crops came about the middle of the seventeenth century, due primarily to the introduction of turnips and clover. Turnips long had been known in England as a garden crop, but large-scale cultivation did not begin until about 1645 when Sir Richard Weston began to urge their cultivation. The clover increased the farmer's hay yield and restored nitrogen to the soil and the turnips enabled him to drop fallowing and to use his land every year. Both crops enabled the farmer to keep more cattle, thereby increasing his supply of manure. They also released him from dependence on salt meat during the winter, for he could keep his cattle throughout the year and obtain fresh meat as it was needed.

Jethro Tull, about 1701, started to drill wheat and other crops, for he had invented a drill for that purpose. Soon he also began to cultivate growing crops by horse-power, a process known as horse-hoeing, and in 1731 he published an important book entitled *Horse-Hoeing Husbandry*. In that book he insisted upon the thorough and deep pulverization of the soil. He, therefore, drilled his wheat and cultivated between the rows, by horse-power or by hand, thus lessening the necessity of fallowing. He also argued that if his system of farming was followed, there would be less necessity of rotating crops than there was under other systems. By his methods

he actually raised thirteen successive crops of wheat from the same land, without manure, and obtained better yields than his neighbors who employed the old methods.

Lord Townshend, a contemporary of Tull, started the so-called Norfolk system of farming. His main interests were the cultivation of turnips and the rotation of crops, but he also started the practice of marling light sandy land. Because of his incessant cultivation of and conversation concerning turnips he gained the nickname of "Turnip Townshend." He adopted Tull's system of drilling and horse-hoeing and developed a four-year rotation scheme which included turnips, barley, clover and rye grass, and wheat. On his own estate his plans worked effectively, the whole farm, much of which was barren waste, being highly improved, so much so, it is said, that it increased tenfold in value.

Even more important, however, than were Tull and Townshend in the development of agriculture was Coke of Holkham. About 1776 Coke began the improvement of some land described as little if any better than a rabbit warren. He, too, grew clover and turnips and improved crop rotation, doubling the productivity of his land. Farmers of his day were using three to five horses in their plow teams, but he discovered that two were sufficient. On land which had maintained eight hundred scrubby sheep he supported 2500 well-bred sheep, and his sheep shearings attracted people from as distant a region as America. He was noted likewise for his Devon cattle. His influence and example perhaps helped England to produce sufficient food to keep her population from marked want during the Napoleonic Wars.

Tull, Townshend, and Coke taught more than the reclamation of barren lands and better farming methods. They made agriculture a learned profession, one that was attractive to gentlemen and to men of letters. And dozens of those men entered agriculture with much the same spirit as an artist or a professional man enters his work. Improvements of all kinds naturally followed. In 1764, for example, Joseph Elkington of Warwickshire began the practice of the under-drainage of wet land.

Writers, though often impractical, contributed to the knowl-

edge of agriculture. Of these writers, Arthur Young, 1741-1820, was the greatest. Not until about 1767 did Young, following some eight years of agricultural efforts, begin to write on agricultural matters. When his father died in 1759, his mother placed him in charge of the family estate at Bradfield Hall. It was small and burdened with debt, but from 1763 to 1766 Young farmed it. In 1767 he took a farm for himself in Essex, where he attempted various experiments, generally unsuccessful, but they provided him with a book, *A Course of Experimental Agriculture*. From 1768 to 1770 he made three tours through various parts of England, publishing a book for each tour. In 1776 he made a tour through Ireland, a tour which he turned into a book. In 1784 he started the publication of the *Annals of Agriculture*, to which many people, including George III as "Ralph Robinson," contributed. Young's first visit to France was made in 1787 and in 1792 his best known book, *Travels in France*, appeared in two volumes. In 1793 he became secretary of the newly created "Board of Agriculture," which was under the presidency of Sir John Sinclair. As secretary he rendered valuable assistance in the preparation of English agricultural surveys.

Of course, the widespread cultivation of winter roots, clover, and other grasses led to an improvement in stock. According to Prothero the average size of cattle and sheep sold in the Smithfield market, London, as late as 1710, was: beeves, 370 pounds; calves, fifty; sheep twenty-eight; and lambs eighteen. In 1795, after the general introduction of root crops and improved grasses and clovers, the average weights were: beeves, eight hundred pounds; calves, 148; sheep, eighty; and lambs, fifty. Arthur Young believed that the value of all stock was about £110,000,000. For this marked increase in the eighteenth century much credit also must be given to famous English breeders.

Robert Bakewell, about 1775, began to experiment with Longhorns, but his success, though notable, was less than that which he attained with sheep. Their breeds are even less known than are those of cattle, but they were of little importance until Bakewell began the principles of scientific selection. The new breed, the Leicesters, which he virtually

created, "in half a century spread over every part of the United Kingdom as well as to Europe and America and gave England two pounds of meat where she had one before." Others followed Bakewell's example and soon English mutton became proverbial all over the world, and famous men from many distant countries came to visit Bakewell. Although his income from his estate at Dishley was large, he died a poor man because of his hospitality and generosity.

Charles and Robert Colling, next to Bakewell, did more than any one else for the English breeding industry. The former began work about 1770 in the valley of the Tees near Ketten, and the latter started at Brampton. Perhaps the origin of the modern Shorthorn dates from the purchase by Charles in 1785 of the bull calf Hubback, whose ancestry, though in all probability he had Dutch blood, is unknown. The Teeswater Durhams, however, long had been noted for their milk, their size, and their beauty. About 1760 Benjamin Tompkins began his improvement of the Herefordshire cattle and soon had the Hereford cattle, which were close rivals of the Shorthorns in beef though they were inferior to them in milk. The Duke of Bedford at approximately the same time started the improvement of the Devon cattle, perhaps the oldest breed in England. Herefords, as well as the Shorthorns, soon were scattered all over the world, but the Devons attained little popularity except where oxen were used widely.

There was also in the eighteenth century an excellent foundation stock of horses to breed upon, for James I and Charles II had been lovers of good horses and both had purchased eastern stock. Darley Arabian, a bay stallion, reached England sometime between 1700 and 1706, and his descendants, by their successes, helped to lessen the prejudice against eastern stock. Godolphin Arabian, another famous import, was foaled in all probability in Barbary about 1724, and was taken to France, and then to England where his first progeny was foaled in 1732. The first of the new breeds, the Suffolk Punch, was perhaps obtained by crossing Norman stallions with native mares, and are referred to by Arthur Young as early as 1775. The Clyde in all probability resulted from crossing Flemish or Belgian stallions with native Scotch mares.

In England, as in some other countries, the government tried to encourage agriculture by corn laws. Edward III, 1327-1377, had tried to keep the corn at home so that it would be cheap, but his policy did not long continue. In 1394 Richard II promoted the exportation of corn to make arable land more valuable. In 1436 exportation was allowed if the price fell to six shillings eight pence a quarter or less and in 1463 importation was forbidden if the price fell to that figure. In 1689, the policy of imposing protective duties on corn really began. If the general price was less than six shillings a bushel, a bounty of about eight pence was allowed on exports; if the price was between six shillings and six shillings eight pence, importation was forbidden but no bounty was given; if the price ranged between six shillings eight pence and ten shillings, corn could be imported subject to a duty of one shilling; and if the price went higher than ten shillings it could be imported free of duty. By 1773 the importation of foreign wheat was allowed if English wheat was more than forty-eight shillings a quarter, or about \$1.50 a bushel. In 1791 a duty of twenty-four shillings and three pence per quarter was levied when English wheat was less than fifty shillings a quarter. If the English wheat rose to more than fifty shillings a quarter, the duty was reduced to two and a half shillings.

SELECTED REFERENCES

- Bland, A. E., Brown, P. A., and Tawney, R. H. *English Economic History Select Documents* (London, G. Bell and Sons, 1915) Part II, Section I.
- Byrne, Muriel St. Clare. *Elizabethan Life in Town and Country* (London, Methuen and Company, Ltd., 1925) Chapters VII and VIII.
- Davis, W. S. *Life in Elizabethan England* (New York, Harper and Brothers, 1930) Chapter XIII.
- Dunlop, O. J. *The Farm Labourer. The History of a Modern Problem* (London, T. Fisher Unwin, 1913) Chapters I and II.
- Funck-Brentano, Frantz (Herbert Wilson Translation). *The Old Regime in France* (New York, Longmans, Green and Company, 1929) Chapters III and VIII.
- Gray, N. S. B. *A History of Agriculture* (New York, I. S. Crofts and Company, 1925) Chapters VII and X.
- Oechsli, Wilhelm (Eden and Cedar Paul Translation). *History of Switzerland* (Cambridge, The University Press, 1922) Chapter XVI.
- See, Henri E. (E. H. Zeydel Translation). *Economic and Social Conditions in France during the Eighteenth Century* (New York, Alfred A. Knopf, 1927) Chapter II.

CHAPTER XVI.

INDUSTRIAL ORGANIZATION AND PRODUCTS.

Gild Decline.—In the late Middle Ages the craft gilds began to decline in western Europe. By 1800 they were virtually as obsolete as the manor. Decline was particularly noteworthy in England, France, Germany, and Spain. It was not, however, a consistent decline. For example, a slight revival occurred in England during Queen Elizabeth's reign primarily because of an influx of foreigners. A revival also occurred in the early part of the modern period in France because the government found the gilds easier to tax than the scattered artisans.

One of the most important causes of gild decline was internal demoralization. High fees and difficult examinations were used to exclude candidates from the mastership. Children or relatives of masters were shown the preference over other candidates. Some German gilds even declared that no man could become a master unless he married the widow or the daughter of a master. One gild actually expelled a man who took for a wife a woman whose grandmother was said to have come from a shepherd's family. Other gilds drove out members who had ridden an executioner's horse or who had drunk or eaten with executioners. Journeymen, consequently, formed gilds of their own to oppose the masters and to secure better wages and hours. Between 1383 and 1696 such journeymen or yeomen gilds were formed among the London cordwainers, blacksmiths, tailors, drapers, carpenters, founders, iron mongers, cloth workers, and armorers. Distinctions within the ranks of the masters also appeared. In England, for example, groups designated as "of the livery" and "not of the livery" arose. The former tended to form in various gilds

the "Court of Assistants," which, as a plutocracy of wealth, in large part ran gild affairs.

A second cause of gild decline was the jealousy between gilds. At Amiens nine gilds, each watching carefully to prevent infractions of its privileges, manufactured woolens. Goose roasters and poulterers kept up their quarrel for a half century, the latter finally being restricted to the sale of uncooked game, and the successful roasters then began a quarrel with the cooks who just had won a triumph over the sauce-makers, only to have in another struggle of a half century limits placed upon their rights to vend cooked meats. Cobblers and shoemakers, tailors and old-clothes men, clock-makers and watch-makers, restaurant-keepers and bakers likewise engaged in similar struggles. Mercers, who sold various kinds of dry-goods, fought the glovers, the bonneters-cappers, and nearly all people whose wares they handled. Such jealousies and warring gilds were by no means limited to France. Sanguinary gild revolutions actually occurred in Flanders, Germany, and Italy.

Numerous guildsmen by opposing innovations and by checking improvements aroused opposition which eventually contributed to gild decline. In France, for example, an enterprising coppersmith was assaulted by the armorers for making a new helmet, a hatter who made an improved hat by mixing wool and silk was attacked by his fellows, the man who invented sheet lead was harried by the plumbers, and a man who improved the processes of making print-cloths was compelled to return to the old methods. Even new machinery and large-scale production were opposed by the guildsmen. At Lyons a silkweaver could not keep four looms, and similar restrictive measures were tried elsewhere.

Competition, in the fourth place, injured the gilds. Artisans in England outside of gild control for a long period of time had plied their trades and frequently had practiced deceitful methods which threw discredit on the gilds. Even in the fourteenth century weavers carried on their trade in the villages and by the close of the fifteenth century considerable impulse was received from the introduction of home-made woolens. From time to time, of course, efforts were made to favor the towns.

Thus, in 1530, Henry VIII's government granted Bridport, which had complained of outside competition, a monopoly "for the making of cables, hawsers, ropes, and all other tackling." In 1534 the workers of Worchester, Evesham, Droitwich, Kidderminster, and Bromsgrove likewise complained of the competition of various persons in "all manner of cloths" and received a monopoly. Ten years later the citizens of York also complained of "evil-disposed persons and apprentices" who had left the city and then competed with it in the manufacture of coverlets and blanketing; they received the usual monopoly. Other countries furnish similar examples. German guildsmen always sought out and suppressed independent artisans. In all European countries guildsmen seem to have succumbed gradually to the competition of the independent artisans who established themselves outside the town walls and thus beyond gild jurisdiction and began to produce better articles at lower prices.

Perhaps the most important cause of gild decline was government regulation or interference. In England in 1388 the government demanded detailed information, in 1437 it required the registration of guilds before justices of the peace, in 1503-1504 it placed high royal officials over the guilds, and in 1531 and 1537 it forbade a higher membership fee than twenty shillings and the requirement of the oath from the apprentices that they would not set up as masters. The bankrupt government of Edward VI dealt the guilds a severe wound. In 1547 all lands which belonged to "colleges, chantries, and free chapels" were given to the king, presumably for the establishment of grammar schools and the support of vicarages and preachers. Little effective opposition seems to have been aroused, partly because the issue was confused in the eyes of the Protestants then in power, partly because the powerful London guilds were spared, partly because the nobles shared in the spoil, and partly because the guilds were becoming unpopular on account of their selfish exclusive policy. The most marked example of government regulation was the Elizabethan Statute of Apprentices of 1563, the law of the land for about two and a half centuries. It made labor compulsory, required justices of the peace in each locality to fix wages

yearly, set seven years as the term of apprenticeship, made the working day twelve hours in summer and during daylight in winter, and required contracts, except piece work, to be for a term of one year with a notice of six months if termination of contract was desired by either party.

Regulation was slight in Germany. In 1669, for example, the Elector of Brandenburg urged total abolition but save in a few towns not even regulation was accomplished successfully. On the other hand, government interference in Spain became an important factor during the closing part of the eighteenth century. In 1772 foreign artisans were allowed to establish themselves without paying taxes or passing examinations. Ten years later applicants for entrance into the guilds were relieved of the necessity of establishing the Christian faith of their ancestors, the sale of masterships was legalized, the distinctions between masters' sons and those of other members were abolished, and painters, sculptors, and architects were accorded permission to work independently of the guilds. In 1784 women were allowed to engage in any trade and six years later any artisan of recognized skill was allowed to work without an examination. Legislation in 1793 dissolved the silk guilds and from that blow the guilds never recovered.

As early as the days of Louis XI, 1461-1483, the French government sold the mastership to individuals who had the cash, thus damaging gild reputation. Turgot, 1774-1776, obtained a decree intended to rescind all gild privileges and to leave every man free to work anywhere in any occupation he desired, but the decree was never fully carried out and after his dismissal the gild system continued much as before. On February 16, 1791, the assembly enacted a law which stated that beginning with April 1 every individual should be free to follow any occupation he chose provided he would obtain a public license and obey police regulations, one of which forbade labor combinations. The necessary licenses were cheap. They were based on the rental paid for the place of business.

The possible harm of government regulation to industry may be illustrated by reference to France. In cloth manufacture Colbert fixed by law for every kind of cloth the proper

breadth and length, the measurement of the selvage, the threads in the warp, the quality of raw materials used, and the process of manufacture. The minimum markings for each piece of cloth were those of the weaver, the dyer, and the finisher, and the seal of the gild. For dyers he actually prescribed 317 rules or articles. By 1787 the manufacturing regulations for cloth had grown to eight volumes in quarto. Colbert's agents everywhere tried to enforce regulations. Manufacturers thus continually lost goods because in some respects they failed to conform to the government's rules. One inspector, just prior to 1789, declared that every week for years he had seen from eighty to a hundred pieces of cloth burned or cut to pieces because they did not conform to government regulation. Even buttons had to be made according to law, and individuals were arrested on the streets for wearing illegal buttons. The royal factories, to note another evil, even lowered wages for laborers and raised prices to consumers.

Domestic System.—As the gilds declined a new type of industrial organization, the domestic system, appeared. The earliest recognition in England was in 1464, somewhat later than it had appeared in the Flemish and Italian textile industries. Attaining considerable importance in the seventeenth century in Germany was a similar system designated by Bucher as house industry or the commission system. Under it in Germany the business undertakers employed in their own homes a large number of laborers, either former handicraftsmen or former wage-earners who received the raw material from the employer rather than from the consumer or else they were peasant families whose domestic work was produced for the market and sold by the entrepreneur. At times the entrepreneur advanced the purchase price of the products or furnished the raw material and at times, too, he owned the machinery such as the weaver's loom or the embroidering machine. Gradually the workers sank to the position of dependent employees.

Under the gild system the master craftsman had bought the raw material, had worked it up in his own shop with his own tools, and had sold the finished products. All employees worked under his roof. In the domestic system, on the other

hand, the manager gave out work to his employees who performed the labor in their own homes, and who occasionally furnished their own materials and the tools. When the employer furnished the raw materials and the tools, the employee paid a rental and received a piece-wage, that is, so much for each article produced. The new system was due primarily to the growth of capital, and secondarily to the widening of markets, the growth of population, and improvements in technique. Between the producer and the consumer now appeared the entrepreneur, primarily a merchant, who made purchases and sales but did little work with his hands.

In England this system appeared in connection with woolen manufactures. Clothiers or merchant manufacturers bought raw wool and handed it out to carders, spinners, weavers, fullers, and other workers who received pay in proportion to their contributions. The work was done in the homes, at times with the aid of a journeyman and a few apprentices, but generally by the members of a single family. The system was especially common in small towns and villages and was oftentimes found in connection with agriculture. All of the work might be done under a single roof, or, especially in western England, household groups might specialize in separate branches, such as dyeing, weaving, or spinning. In the sixteenth and the seventeenth centuries numerous improvements due primarily to the coming of Flemish, Walloon, and Huguenot artisans occurred. Even in Elizabeth's reign, the "stocking frame" or knitting machine appeared. Because, however, most of the machinery was inexpensive most of the manufacturing was carried on under humble roofs. Agricultural tenants naturally found the system especially helpful, for woolen manufacturing, nail-making, soap-boiling, pottery manufacturing, and other manufactures furnished them with by-industries adapted to the strength and time of all members of the family.

From Defoe's account of the cloth industry at the close of the first quarter of the eighteenth century the reader might imagine that manufacturing under the domestic system was ideal.¹ Yet such a supposition is far from the truth. The

¹ See *A Tour Through Great Britain*, Vol. III pp. 144-146, quoted in Fland, A. F. Brown, P. A., and Tawney, R. H. *English Economic History Select Documents*, pp. 462-463.

worker was dependent. Often he did not even own the tools with which he worked and seldom did he own the raw materials. At times he became indebted to his employer and suffered severe restraints. Toward the close of the period, moreover, factors often represented the employer, thus doing away with the remnants of personal contact. At times, too, the trucking system, whereby the work was paid for in products thus causing a loss of time and a loss of wages, was introduced. Sometimes, furthermore, land was given up in order to have more time for the manufacturing. Child labor also appeared with some of its present evils, and sweating, or working long hours for low wages under insanitary conditions, likewise developed.

Just here we may summarize the methods of cloth manufacture under the domestic system. These old methods of cloth-making had to prepare for use the raw material as it came from the sheep, the cotton plant, or the flax by straightening out the fibers. In the case of wool this was done by combing and in the case of cotton and flax by carding. The second step was spinning, or the drawing out of and the twisting together of the fibers. Two main machines,—the old high wheel and the low wheel,—were used. The high wheel was whirled by hand, being “allowed to come to rest while another section of the cotton, wool, or flax was drawn from the carded mass by hand.” The wheel was then whirled again, the thread being twisted and wound up on the spindle. When the low wheel was used, it was kept in continual motion by a treadle worked by the foot, and the material was drawn out by the hands, twisted, and wound by a horse-shoe-like device called the “flyer.” After the spinning was finished the thread was placed in the loom. The warp or upright thread was stronger than the woof or weft, “which was wrapped on the shuttle and thrown horizontally by hand between the two diverging lines of warp threads.” Finishing, fulling, shearing, and dyeing, and other processes dependent upon the nature of the cloth followed. Spinning, a slower process than weaving, long had been done by women. One weaver could normally keep five or six spinners busy, and the discrepancy between the two processes became much greater when Kay invented his drop

box and flying shuttle in 1738, for one man could by pulling two cords alternately move the shuttle to and fro, thus doing the work which had formerly required two men. That discrepancy was one of the factors leading to the invention of spinning machinery and the coming of the Industrial Revolution.

Manufactures of Southern Europe.—Naturally with Turkish domination, ignorance, and paucity of resources the influence of Constantinople declined, manufactures revealing little importance in the Balkans. Yet foods, furniture, homes, arms, and tools were produced and mining, leather and metal work, and weaving were practiced. Even mountain villagers in Thessaly found markets for dyed goods in Germany and elsewhere.

Italian manufactures likewise decreased. Florence lost her markets because of wars and tariff barriers and steadily declined. Her woolen manufactures which were said to have employed thirty thousand men in 1338 used less than one thousand in 1767. Venice managed to retain some of her luxurious manufactures such as glass and silk. John Moore declared that Naples was in a languishing condition, for the best silk goods came from Lyons and the best woolen goods came from England. He mentioned as chief manufactures silk stockings, soap, snuffboxes of tortoise shell and lava, tables, ornamental furniture, and marble. Neapolitan embroidery work was perhaps better than that of France and macaroni, liquors, and confections were famous. Because of their previous importance and historic interest a rather lengthy quotation from Moore on Venetian manufactures will be given:

... The island is said to contain 20,000 inhabitants. The great manufactories of looking-glasses are the only inducements which strangers have to visit the place. I saw one very fine plate, for a mirror, made in the presence of the Archduke in a few minutes; though not so large as some I have seen in the Paris manufactory, yet it was much larger than I could have thought it in the power of human lungs to blow. Instead of being cast as in France and England, the Murano mirrors are all blown in the manner of bottles. It is astonishing to see with what dexterity the workman wields a long cylinder of melted glass, at the end of an iron tube, which, when he has extended as much as possible by blowing, and every other means his art suggests, he slits with a sharp instrument, removing the two extremities from each other, and folding back the sides: the cylin-

der now appears a large sheet of glass, which being once more introduced into the furnace is brought out a clear finished plate.

This manufactory formerly served all Europe with looking-glasses; the quantity made here is still considerable. . . Besides mirrors, an infinite quantity of glass trinkets (*margaritini*, as they are called) of all shapes and colors are made here. Women of the inferior ranks wear them as ornaments, and as rosaries; they also mold this substance into many various whimsical forms, by way of ornamental furniture to houses and churches. In short, there are glass baubles enough made here to bribe into slavery half the inhabitants of the coast of Guinea.²

Partly because of the contributions of Moors and Jews and the efforts of Ferdinand and Isabella Spain made considerable progress in manufactures. The greatest growth occurred in the sixteenth century, the textile industries of Toledo, so it is said, increased fivefold in a quarter of a century. Despite that rapid increase the demand for products could not be filled and orders were booked for five to ten years ahead. The industries based on wool were said to support one-third of the population. Spain likewise exported silk goods made from imported raw materials. Large plants also manufactured soap and other products. Yet decline soon came, woollen manufactures by 1650 being coarse materials and the silk tax in Granada yielding only a fourth as much as it had done under Charles V. Spain even had to get manufactured goods from other countries to send to her colonies, for only a few of her eighteenth-century exports,—wine, oil, soap, soda, and iron,—had passed the first stage of manufacture.

Of course, efforts were made from time to time to encourage manufactures. Some of the wool produced by the Mesta was used at home. Philip II incorporated mines "into the crown" and encouraged prospecting for minerals. In the second half of the eighteenth century under Charles III restrictive prohibitions of earlier years were removed, model workshops were established, and foreign workmen and new methods were introduced. Yet all manufactures at the close of the eighteenth century were worth less than seventy million dollars. Even in their most prosperous days the Spanish looms had never produced cloth equal in value to the output of the single city of Bruges.

Portugal has never been noted as an industrial nation. She

depended upon England for most of her manufactured goods and the expulsion of the Moors and the Jews, as in Spain, injured industry. Pombal vainly sought to break the stranglehold of the English on manufactures. From 1750 to 1759 he established gunpowder, sugar, silk, wool, paper and glass factories, but "port" wine seemed to be well-nigh the only satisfying Portuguese manufacture.

Manufactures of France and Flanders.—In 1536 two Genoese established the first silk manufactories at Lyons. Henry IV founded manufactories to produce the fine crepe of Bologna, the gold thread of Milan, and the high warp tapestries, leather, mirrors, glass, crystal, and linen of the Dutch and other progressive peoples. Richelieu carried on this policy by encouraging the developing manufactures of carpets, glass, and the like. Colbert sought to encourage manufactures. He developed the protective tariff system. By means both fair and foul he learned the industrial secrets of neighboring nations and attracted their workers to France. He persuaded the Church to abolish seventeen holidays. He tried to reduce the number of monks and to postpone the age at which they might take religious vows. French cloths, linens, serges, laces, velvets, carpets, silk cloth mingled with gold and silver, tapestries, tin, steel, porcelain, and morocco leather attracted attention. In fact, Colbert imprinted quality upon French manufactures.

But the days of Louis XIV and the period of wars brought decline to French industry. Most disastrous of all was the revocation of the Edict of Nantes in 1685, for a quarter of a million Huguenots, or more, despite all efforts to detain them, left France in the closing years of the seventeenth century. That revocation was followed by wars and regulations which further depressed France. Corporations, masterships, and wardenships injured industry by restricting the patrons and by requiring payment for an apprenticeship before practicing a trade. Masterships were sold for from three to five thousand livres, but even the purchaser could not improve upon his article lest he infringe the rights of a corporation. Manufacturers of goods could not dye them, dyers of thread could not dye silk or wool, hatters could not sell hosiery.

Because her workers were prosperous and skilled, the manufactures of Holland were noteworthy. When Henry IV of France wanted to introduce tapestries and cloths of various kinds he sought the Dutch patterns. Colbert, too, followed this practice and was especially anxious to learn Dutch trade secrets. In fact, during the early part of this period nothing reached Dutch shores which did not receive "a more perfect finish" or become "transmuted into something good and beautiful." Yet the ravages of the "Spanish Fury" damaged industry. Holland, consequently, fell in the industrial scale. England, though needing Dutch services in dyeing cloth until well into the seventeenth century, had surpassed the Dutch in cloth manufacture by the close of the sixteenth century.

English Manufactures.—The exportation of raw wool was banned temporarily as early as 1258 and restrictions operated for various periods as late as 1825. Because of oppression in Flanders Flemish immigrants continued to enter England and skilled French Huguenot workers did likewise after 1685. Although wool was the chief manufacture throughout the period, other products were made. The Elers from Nuremberg taught Astbury how to make the red unglazed Japanese ware and the black Egyptian product. To them Burslem owed its importance as a pottery center. Josiah Wedgwood, 1730-1795, born at Burslem, brought pottery-making to the rank of a science and one of the chief industries of the country. Salt, brick, tin, lead, copper, coal, and iron were still other products of the industrial life. The Romans had coal mines in England and the Newcastle collieries were opened as early as 1258. The steam engines invented by Savery, Newcomen, and Watt pumped water from the mines and aided mining. Concerning mining in his day Defoe wrote:

1. They dug in the pit a vast depth in the ground, sometimes fifty, sixty, to a hundred fathoms; and being loaded (for so the miners call it) into a great basket or tub, are drawn up by a wheel and horse, or horses, to the top of the shaft, or pit mouth, and there thrown out upon the great heap, to lie ready against the ships come into the port to demand them.

2. They are then loaded again into a great machine called a wagon; which by the means of an artificial road, called a wagon-way, goes with the help of but one horse, and carries two chaldron, or more, at a time, and this, sometimes, three or four miles to the nearest river or water carriage they come at; and there they are either thrown into or from a great storehouse, called a steath, made so artificially with one part close to

or hanging over the water, that the lighters or keels can come close to, or under it, and the coals be at once shot out of the wagon into the tall lighters, which carry them to the ships, which I call the first loading upon the waters.³

During the Middle Ages little iron was mined, and that little was smelted by wood, a fact largely responsible for the destruction of the forests. Early in the seventeenth century, however, Dud Dudley commenced to use sea and pit coal to smelt iron and in 1619 obtained a monopoly on his process. He sold cast iron for twelve pounds a ton and made a good profit, for he could produce seven tons a week. Although his works were soon demolished by an ignorant mob, other inventors appeared and by the close of the seventeenth century about 180,000 tons of iron were being produced yearly. In 1719 iron gave employment to a fifth of a million people. About 1730, after a sharp drop in production, another famous inventor, Abraham Darby, began his experiments, and in 1756 his works produced twenty to twenty-one tons each week. Smeaton and other inventors followed Darby. And so the Industrial Revolution affected the iron trade.

Manufactures of Central Europe.—In various parts of Germany, after the Thirty Years' War, manufactures seemed to be progressing. When Louis XIV revoked the Edict of Nantes in 1685, the Great Elector warmly invited the Huguenots to Brandenburg and soon twenty thousand skilled artisans were settled around Berlin. Frederick the Great encouraged industry, particularly silk. Prussia also reformed some of the worst abuses of the guilds and aided manufactures by a protective tariff. John Moore spoke rather highly of some of the German manufactures and scenery:

I did not imagine that this manufactory (porcelain) had arrived at such a degree of perfection as it has in several places in Germany, particularly at Brunswick and Berlin. The parcel I have ordered for you is thought equal to the finest made at Dresden.

If I were strongly in a humor for description, our journey through the most beautiful and most fertile part of Germany would afford me a fair opportunity. I not only could ring over the whole chimes of woods, meadows, rivers, and mountains, rich crops of grain, flax, tobacco, and hops; I might animate the landscape with a copious breed of horse, black cattle,

³ See Defoe, Daniel *The Complete English Tradesmen*, Vol. II, pp. 172 173 in Bland, A. E., Brown, P. A., and Tawney, R. H. *English Economic History Select Documents*, p. 492.

sheep, wild boars, and venison, and vary the description with the marble, precious stones, and mines of lead, copper, iron, and silver, which Saxony contains within its bowels. I might expatiate on the fine china-ware, and fine women...⁴

In 1700 Austria, the other important German state, exported such raw products as wool, flax, linen, hides, copper, etc. and imported them back again in manufactured form. After that date, however, she began to favor manufactures by a protective tariff system, the use of premiums and subsidies, and the restriction of gild monopolies. Consequently Austria soon began to export iron and steel wares, stockings, glass, porcelain, etc. and the Bohemian cloth industry began to revive.

A separate paragraph should be devoted to the mines of Silesia. The silver and lead mines of Tarnowitz had been extremely productive in the sixteenth century, but mining there virtually had ceased by 1631 because an intolerant ruler had driven out the miners and the gilds and because heavy taxation prevented the revival of the industry. Shortly after the Seven Years' War the king had taken over the copper foundries on Count Mansfield's territories at Rothenburg in order to prevent the suffering of the miners and to insure the maintenance of the standard of living. In a short time forges were again in successful operation and the conviction was developing that foreign copper and lead were no longer needed; hence non-importation regulations were attempted in 1768 and again in 1769, and twenty years later the importation of Swedish iron was prohibited.

As in other countries foodstuffs, houses and equipment, wearing apparel, weapons, and tools were produced, but not all of the Bohemian manufactures were crude. In the closing part of the sixteenth century carving, mosaic work, and statuary were brought to a high degree of perfection. An extensive porcelain industry developed in and around Carlsbad. Probably, however, the most important branch of manufacturing was the textile industry, which was located in the northeastern corner around Reichenberg, and in the lower Elbe Valley.

⁴ Moore, John. *A View of Society and Manners in France, Switzerland, and Germany* (J. Smith, Paris, 1803) Vol. II, pp. 238, 239.

Bohemia became a manufacturing country in part because of her abundant minerals, salt being the only notable one absent. Lignite and coal were the most important, and iron ranked second. Some of the important silver mines of the Middle Ages have been abandoned, but some silver is still mined. Lead, tin, antimony, uranium, radium, graphite, and porcelain earth are other minerals of some importance. Scattered in various parts of Bohemia are also alum, arsenic, cobalt, copper, nickel, such precious stones as garnets, stone for construction work, and sulphur. More than two hundred mineral springs, some of world fame, are scattered over Bohemia. Yet the mineral development, of course, is a product of the nineteenth century.

Switzerland profited by the revocation of the Edict of Nantes. It received about sixty-six thousand French refugees who brought with them their skill in textiles and other manufactures. Silk, linen, and cotton manufactures began to thrive. By the close of the eighteenth century the St. Gall linen industry, long the only large-scale Swiss manufacture, had been passed by cotton and embroidery. Zurich was the next most important center of the cotton industry. In Zurich the silk industry also had received a start, the number of workers in 1787 being estimated at four thousand. In Glarus in 1714 a pastor introduced cotton spinning, which soon took the place of cheese, whey, and slates. Cotton, linen, and other textiles were scattered widely. Geneva and Neuchatel became famous for stamped cottons and laces, and Basel developed an important industry in the weaving of silk ribbons, in large part because of the introduction of the ribbon-loom.

In western Switzerland watch-making, rather than the manufacture of textiles, was the most important industry. It had been introduced into Geneva in 1587 by Charles Cusin, a religious refugee. Along with the jewelers' and goldsmiths' arts it was in the hands of a gild, which specialized on showy articles for those who could afford them. The 840 master-craftsmen of Geneva employed five or six thousand workers in 1789 and produced forty to sixty thousand gold watches yearly. Unlike conditions in Geneva the watch-making industry in the Neuchatelois Mountains had developed as a free

home industry. In 1679 in La Sagne a locksmith's apprentice repaired an English watch, and within a year and a half this apprentice, Daniel Jean Richard, with home-made tools, made a watch for himself. Richard taught others the trade and within a score of years after his death fifteen thousand watches were being manufactured yearly in the district. From this district, too, came Berthoud of Couvet and Josiah Emery, respectively the inventor and the most famous marine chronometer-maker of the century.⁵

Backward Industrial Regions.—Denmark's participation in the Thirty Years' War virtually annihilated her manufactures and commerce, and the same bad effects applied in Norway, thousands of people being reduced to beggary. During the last half of the eighteenth century, therefore, immense sums were spent in an effort to increase Danish domestic manufactures, and thousands of workers in Copenhagen found employment in the manufacture of silk and other fine goods. Tariffs, despite smuggling, shut out the cheaper foreign articles theoretically, and thus encouraged manufactures, especially textiles. The Armory, the cannon foundry, and the powder mills met greater success than did the textile establishments.

Sweden, like the other two countries, made boats, which, like her naval stores, copper, iron, steel, and shot, were in demand. Concerning her manufactures, a seventeenth-century writer, William Usselinx, says:

In respect to various manufactures of fine linen, cloth, worsted baize, bombazine, and others, there is little of this kind done in the country, partly because impulse and materials are wanting, and partly because there are no means for exporting their wares. But of skill and shrewdness they have no want, for we find peasants able at all sorts of handiwork. They are carpenters, joiners, smiths; they bake, brew, weave, dye, make shoes and clothes, and the like, wherein they surpass all other nations of Europe, inasmuch as in other countries hardly anyone will attempt to put hands to any craft that he hath not learned. Their wives and daughters make many curious devices in sewing, weaving, and other pleasant arts, whence it appeareth that they are very knowing and wiseminded.⁶

Poland had the crude manufactures of northern Europe

5 Oechsli, Wilhelm (Eden and Cedar Paul Translation). *History of Switzerland*, 1499-1914 (University Press, Cambridge, England, 1922) pp. 238-241.

6 *The Historians' History of the World*, Vol. XVI, p. 319.

and Russia had buildings, food, weapons, and clothing. Most of the clothing was home-made. In winter the peasants, like those of Russia, wore a sheepskin, with the wool on, and in summer a rather tight-fitting coat of coarse material. They usually wore home-made caps and boots. Poles, Russians, and Lithuanians were virtually all shoemakers, for the common covering for the feet was the bark of trees with the heavier bark used to protect the feet against stones. Tender bark, carefully wrapped around the calves of the legs, served as stockings.

The long strife between the large land owners and the factory owners for labor injured Russian manufactures, for the land owners won. In 1762 the purchase of peasant villages as factories was prohibited. The result was to throw the factories into the hands of the nobility and virtually to eliminate the bourgeoisie class. Special monopolies and privileges to factory owners were abandoned or mitigated, and in 1769 the payer of a small tax was allowed to keep a loom in his own house. The resulting competition of the various weavers probably improved the quality of the goods, checked importation, and promoted the development of a class of free workers. The good effects of the change on the individual workers seem evident from the fact that when Catherine II ascended the throne in 1762 there were 984 factories and workshops, not including mountain iron works, and when she died in 1796 there were 3161. The value of all factory products in 1773 was about 3,500,000 rubles.

The chief manufactures were leather, textiles, and mineral products. Linen had long been the textile leader. At the close of the eighteenth century occasional establishments employed workers by the thousand. Peter the Great's most productive enterprise was his development of iron in the Ural Mountains. By example he even sought to encourage iron manufactures and to emphasize the dignity of labor. He learned the business of a blacksmith, on one day forging eighteen pood, or 720 pounds of iron. His attendant boyars and noblemen were compelled "to blow the bellows, to stir the fire, to carry coals" and to do the other work of journeymen blacksmiths. Later from the owner of the works he claimed

pay at the rate of three copecks, or an altin, per pood. Verner Muller, the proprietor, offered him eight ducats, remarking: "It is the least that can be given to such a workman as your majesty." The emperor refused: "Take your ducats and pay me the usual price; I have worked no better than another blacksmith; and this will serve to buy me a pair of shoes, of which I am in great want."⁷ The Russians likewise produced bronze. In 1718 about twenty-five thousand serfs were employed in the iron and bronze establishments which turned out 104,464 tons of iron and 3214 tons of bronze. Wood generally was used in smelting the ore. Other manufactures included the marble or stone quarries, wood, and glass.

SELECTED REFERENCES

Cunningham, W. *The Growth of English Industry and Commerce in Modern Times* (Cambridge, The University Press, 1919) Pages 494-540.

Cheyney, E. P. *An Introduction to the Industrial and Social History of England* (New York, The Macmillan Company, 1925) Chapter VII.

Gibbins, H. de B. *Industry in England* (New York, Charles Scribner's Sons, 1912) Chapters XIV and XX.

Mavor, James. *An Economic History of Russia* (London, J. M. Dent and Sons, 1925) Vol. I, Book I, Chapter VI.

See, H. E. (E. H. Zeydel Translation). *Economic and Social Conditions in France during the Eighteenth Century* (New York, Alfred A. Knopf, 1927) Chapters VI and VIII.

Unwin, George. *Industrial Organization in the Sixteenth and Seventeenth Centuries* (Oxford, The Clarendon Press, 1904) Chapters I and VII.

Usher, A. P. *Industrial History of England* (Boston, Houghton Mifflin Company, 1920) Chapters VII and XII.

Weber, Max (Frank H. Knight Translation). *General Economic History* (New York, Greenberg, 1927) Chapters XI-XIII.

⁷ *The Annual Register*, 1789 (London, 1792) Vol. XXXI, B, p. 27.

CHAPTER XVII.

COMMERCIAL ORGANIZATION

The Expanding Commercial World.—The decline of the Mongol rule and the rise of the Turks in Asia interfered with, though they did not check completely, the India trade. The route through Egypt, the only one really open, was a costly one because of the heavy tolls charged. Thus the Europeans were anxious to open an all-sea route to India. In this work Prince Henry of Portugal took the lead. In him that small and undeveloped country found an inspired leader. At the age of twenty-four he went to a secluded point in southern Portugal and there for more than two score years he worked as a pioneer navigator, or rather as an organizer of exploring expeditions. To him from all over Europe came daring sailors and pilots, and league by league they toiled down the African coast on their way to India. Difficult indeed was the task of his sailors. Strong currents, furious storms, dreary sand dunes, and clouds of dust and mist combined with superstitious beliefs and poor means of navigation limited their voyages. Cape Bojador, projecting far beyond the coast line and presumably skirted by dangerous reefs, long had loomed up as an insurmountable barrier. But under the inspiration of Prince Henry, Cape Bojador was passed in 1434 and Cape Verde was reached in 1445. Yet at Prince Henry's death, in 1460, the Portuguese had only reached Sierra Leone. In 1471 they crossed the equator and sixteen years later Bartholomew Diaz rounded the Cape of Storms, renamed Cape of Good Hope. In July, 1497, Vasco da Gama, started for India and in May, 1498, he reached Calicut. Portugal had escaped from the burden of the land tolls.

But other people than the Portuguese were interested in

the trade with the East. Here and there were pioneers who believed that the East could be reached by sailing west. Columbus merely put to the practical test beliefs which were widely current in his day. And his discovery in 1492 merely anticipated by a few years a discovery that was sure to come sooner or later as a result of the activities of Prince Henry the Navigator, for in 1500 Cabral on his way to India landed on the coast of Brazil. Balboa by the discovery of the Pacific in 1513 showed that this newly discovered territory was really a new world, and Magellan's voyage, 1519-1522, revealed the great distance from Europe to Asia by the western route.

Because Spain and Portugal were the two main Catholic pioneering powers the pope divided the non-Christian world between them. After the various bulls of Pope Alexander VI in 1493 and the Treaty of Tordesillas in 1494 the line of demarcation ran three hundred leagues west of the Cape Verde Islands, all to the east belonging to Portugal and all to the west to Spain. The former power thus received Africa and Asia except the Philippines and the latter power received America except Brazil.

The pope's division of territory, of course, was received well only by good Catholics. Henry IV of France, a Catholic for mercenary reasons, is said to have remarked jokingly: "Show me Adam's will bequeathing the whole world to the pope and I will respect his division of territory." England and Holland, fast becoming Protestant, likewise paid scant attention to papal bulls. Even Sweden wanted a share of the territory. And in the New World by 1650 Spain, England, France, Holland, and Sweden all had settlements.

What, may we ask, were some of the economic effects of these explorations and settlements? In the Middle Ages trade had been restricted to the European seas and to the fringe of the Atlantic. After the discoveries it became worldwide. Nations or leagues in the Middle Ages had tried to monopolize internal seas; in the seventeenth and eighteenth centuries wars finally established the theory that the seas were free to the commerce of all nations. Because water transportation is so much cheaper than land transportation articles such as tea, coffee, and sugar, formerly regarded as

luxuries for the rich, now became necessities for them and later still for the poor. India textiles now became easily accessible to Europe, unless, indeed, the various countries excluded them by heavy import duties. From America huge quantities of the precious metals were obtained, causing a doubling or a trebling in prices. From America, too, sugar and tobacco soon came in large amounts.

This broadening out of markets necessarily had considerable influence upon the methods and the means of navigation. Large ships and great speed became highly desirable; hence the galley tended to disappear and sailing vessels came into use. Increased size of the vessels naturally caused changes in the relative importance of ports. Dordrecht, consequently, gave way to Rotterdam, Rouen yielded to Havre, and Seville succumbed to Cadiz. Helps to navigation came through this broadening of markets. The use of the ship log in the seventeenth century enabled the keeping of a fairly accurate record of the distance travelled and the invention of the chronometer in the next century allowed the determination of longitude. Improvements in the science of astronomy, moreover, led to the construction of tables which were the predecessors of the present "nautical almanacs." Then, too, the charts and the sailing directions tended to become reliable and, therefore, helpful.

Changes in Economic Organization.—During the Middle Ages there had been little specialization in trade. Only in the closing century of that period, here and there, notably in Germany, did a group of merchants who devoted themselves entirely to the wholesale trade appear. Commission merchants or factors, for a commission normally varying from two to five per cent, began to buy and to sell for other men as directed, a procedure furthered by the rapid development of public posts and the increased speed of communication and travel. Market news thus was disseminated rapidly. Circulars describing market conditions, forerunners of the present newspaper reports, also appeared.

Commerce tended to be organized on a military basis. The possibility of loss at the hands of pirates and rival merchants from other countries as well as the varied perils from storms

stimulated combination. Ten men interested in one ship might make a respectable fortune or suffer a heavy loss, but associated with ninety other men and sending out ten ships they might lose one boat and yet still make reasonable profits from their gains on the nine successful vessels. To such self-interest in the formation of the trading companies was soon added government requirement. To each company a definite field for trade was given and from that field all other associations and individuals were excluded. One reason for this was the need for controlling individual merchants for the public good. Another reason was the laudable desire to protect from newcomers merchants who had made the early sacrifices to start a given trade. A third reason was the ease with which taxes could be levied. Then, too, the prevalent idea of gild regulation made the regulation of foreign commerce an easy step.

The first type of large organization was the so-called regulated company. Under this type each member paid a fee and traded for himself, taking all profits and shouldering all losses, but he, with his fellow members, was subject to common rules in the monopolized territory, much as people now trading on a stock exchange are subject to common regulations. Company control over the associates, however, was weak and in hard times individuals often withdrew. The answer to this problem was the joint-stock company. It insured continuous operation, for if a stockholder died or sold his interest another would take his place and the company would continue business. The joint-stock company, moreover, drew its funds from more varied sources than had earlier combinations. Foreigners, women, and children, anyone, in fact, with money, could invest and share in the profits without the necessity of giving personal attention to the work.

The English East India Company founded in 1600 as a regulated company was by degrees, during a half century, made into a joint-stock company. The London and Plymouth Companies, formed shortly after the East India Company, had a two-fold object—trading and colonization. Members of the companies fell into two main classes—adventurers and planters. The former invested their money and the latter who came

as colonists invested their lives. Europe of this period developed several hundred stock companies, a hundred being formed to promote great commercial or colonial enterprises.

Rise and Fall of the Fuggers.—The rise of family banking houses was another characteristic of the period. The Fugger house was the most important. Hans Fugger was the oldest known man of the Fugger name. His son, of the same name, moved from Graben in Lechfeld to Augsburg, where he plied his father's trade as a weaver and engaged in commerce so successfully that at his death he left the sum of three thousand florins, which formed the original Fugger capital. The sons of the second Hans Fugger were respected members of the guilds of weavers and merchants, married daughters of burgesses, and trafficked in "spices and silken and woollen apparel." About a century after the appearance of the first Fugger in Augsburg, the firm entered its most glorious period under the second Jacob Fugger, 1459-1526.

That individual tied up the family capital under the name, "Jacob Fugger, Brothers and Sons." He first granted large loans to Archduke Sigismund of Tyrol, thereby becoming owner of silver mines in Tyrol. Toward the close of the fifteenth century he and other Augsburg merchants formed a combination to control the Hungarian copper mines, complete control soon passing to the Fuggers. Maximilian I of Germany borrowed heavily from Jacob Fugger, mortgaging the countries of Kirchberg and Weissenhorn, pawning all kinds of regalia, and ennobling Fugger in 1514. Tetzl sold his indulgences under Fugger supervision and one-half of the amount went to the Fuggers, for the Archbishop of Mayence, Albrecht of Brandenburg, for a loan of thirty-one thousand ducats had ceded his share of the indulgence promise. Fugger likewise aided Charles V in the purchase of the imperial crown and reminded the powerful monarch of that fact in 1523: "It is an obvious and well-known fact that your Imperial Majesty would never have attained to the Roman Crown without my help."¹ Fugger leased the crown revenues from three large estates in Spain and also the mercury mines in Almaden. The firm like-

¹ Klarwill, Victor von *The Fugger News-Letters, 1568-1605* (G. P. Putnam's Sons, New York, 1925) p. XXIV. See also pp. VII-XXXIV.

wise carried on a trade in spices, worked the mines of Tyrol, Carinthia, and Hungary, and continued the weaving of fustian and cloth on thousands of looms.

Jacob Fugger II left no direct heir, but his nephew, Anton, conducted the business successfully. Anton and his brother Raymond were made counts for a consideration, but with a capital of five million florins in 1546 they could afford the luxury. In truth, in prosperous periods their profits amounted to more than fifty per cent and for more than thirty years the average rate of profit exceeded thirty per cent. The Fugger capital expressed in modern purchasing power was forty million dollars in 1546, or more than five times that of the Medici in 1440, or fifty times that of the Peruzzi in 1300.

In time, nevertheless, decline began. The demands of the emperor and the Spanish court became increasingly heavy. The numerous branches, especially the one at Antwerp, caused trouble. Anton Fugger, who died childless, shortly before his death, directed his nephew, Hans Jacob, to carry out a quiet liquidation. Philip II, in 1557, first declared himself a bankrupt and the Fuggers forfeited four million florins. At heavy cost the Fuggers escaped a second bankruptcy in 1575. In 1607 under Philip III the Fuggers lost about three and a fourth million ducats. All told the transactions with the Hapsburgs cost about eight million florins. The Fuggers also advanced money for the religious wars in Germany. Their worthless parchment and heavily mortgaged land naturally suffered severely during the Thirty Years' War. To financial losses as a cause of decline family dissension was added. From 1803 to 1806 Anselm Maria Fugger reigned over Babenhausen, a principality of eleven thousand, but in 1806 the old empire disappeared and now of the vast Fugger fortune little more than the Bavarian estates remain.

The Rise of Banks and Stock Exchanges.—The Catholic Church questioned, but it never completely stopped, the taking of interest. Denunciations of interest were strong among the early Protestants. Calvin, unlike Luther who viewed life with the eyes of a mystical peasant, saw the view of his prosperous merchants, an urban class. Calvinists, therefore, though with many heartaches, recognized the merchant as of

equal respectability with the laborer and the landlord. "What reason is there," asked Calvin of a correspondent, "why the income from business should not be larger than that from land-owning? Whence do the merchant's profits come except from his own diligence and industry?"² Contemporaries interpreted Calvin as teaching that the debtor could be asked justly to concede a part of his profits to the creditor whose loan had made those profits possible, but that interest-taking was wrong when it made the creditor rich "by the sweat of the debtor" and deprived the debtor of "the reward of his labor." Calvin's importance relative to interest is primarily in the fact that his teachings influenced his followers throughout the world and helped to break down the cherished belief that interest in itself was a disease as foul as leprosy.

As early as the fifteenth century commerce had freed itself from coinage, accepting coins by weight and specifying a particular type of coin. It then adopted deposit banking which had been in vogue in China because of the debasement of coins. When weights were fixed, payments were made by checks drawn on the bank in which the merchant kept his silver bars, thus creating a bank money secured by silver bullion and the sole method of settlement for the persons in the system. Such a bank, the Rialto Bank, appeared in sixteenth-century Venice. Similar banks were established in Amsterdam in 1609, in Nuremburg in 1621, and in Hamburg eight years later.

Before the establishment of the Bank of England the government had formed financial connections with the London goldsmiths. Those ties ended in 1672 when the government suspended payment and most of the goldsmiths became bankrupt. Business circles, consequently, sought a credit institution independent of the state. At first Parliament objected to an institution which might make the government independent of parliamentary grants. That objection declined after the Revolution of 1688 which made the king subservient to Parliament.

Out of the numerous projects for a bank that of William Paterson was accepted. Paterson's plan, like some of the

² Quoted by Tawney, R. H. *Religion and the Rise of Capitalism* (Harcourt, Brace and Company, New York, 1926) p. 105.

earlier Continental banks, combined a banking business with a loan to the government. This loan, £1,200,000, was subscribed in approximately ten days. It was to be returned in annuities of £100,000 and was secured by taxes on beer and ships. The individuals who had subscribed the money were incorporated into a company which was to receive eight per cent interest and for management four thousand pounds yearly, the total being equivalent to eight and a half per cent on the capital. The company was authorized to enter into banking operations, as, for example, the buying of gold and silver bullion, the discounting of bills, and the granting of loans on security. The real capital was, to be sure, the government loan, but the bank possessed authority to accept deposits and to issue notes against transferable securities equivalent to its capital. That policy has continued, an increase in the loan to the government being financed by an increase in capital with the note issue limit correspondingly augmented. The Bank of England, "the first modern bank of issue," exercised the functions of both a transfer and a commercial bank, really combining the work of both.

The bank at first was bitterly opposed, but it was also imitated. The goldsmiths, smarting under the loss of business, engineered a run on the bank, trying to bankrupt it, but it weathered the storm and increased in prestige and influence. As long as John Law's *Banque Generale* in Paris, established in 1716, issued notes against negotiable securities in imitation of the Bank of England it succeeded. And the same statement applies to some other European banks, but soon Law's bank, the Courant Bank of Denmark, the Stockholm Exchange and Loan Bank, and the Russian Note Bank were suffering from unsecured loans and inflation, really a paper money spree.

In the early part of the sixteenth century Antwerp, successor to Bruges, was the world's great trading and financial city. If contemporaries are correct, as many as five hundred vessels sailed in or out of its ports in the course of a single day. In Antwerp, unlike Bruges, trade was almost free. In it developed perhaps the first great exchange, whereon paper securities calling for the actual wares were traded daily. Such

a procedure required, of course, the grading of the wares and the presence of samples. Produce exchanges also were found, pepper being actively traded at Amsterdam. In London of the seventeenth century the "candle auctions," whereby goods were offered for sale with perhaps an inch of lighted candle on the desk and sold before the candle went out, acquired fame. Indigo, silk, or spices to the value of a half million dollars might be sold in this way in a little while. Lyons was likewise a famous market. When Antwerp and Lyons became embarrassed through the insolvency or dishonesty of royal debtors, Amsterdam, Hamburg, Frankfort, London, and other cities came to the front. In them the shares of trading and industrial companies and national debts became objects of trade. Investments thus became international, for the shares of the various trading companies were quoted on the leading European exchanges and capital flowed by means of loans from countries where it appeared least needed to countries where it appeared most needed. The Dutch, for example, supplied a considerable part of the capital needed for the Bank of England, 1694.

Speculation.—Unfortunately speculation developed in connection with both banks and stock exchanges. The possible abuses in the early banking schemes are pointed out in a 1676 tract entitled, "The Mystery of the New Fashioned Goldsmiths or Bankers":

Having thus got Money into their hands, they presumed upon some to come as fast as others was paid away, and upon the confidence of a running cash (as they called it) they begun to accomodate men with moneys for Weeks and Months, upon extraordinary gratuities, and supply all necessitous Merchants that overtraded their Stock, with present Money for their Bills of Exchange, discounting sometimes double, perhaps treble interest for the time, as they found the Merchant more or less pinched.³

In connection with the exchanges speculators established shrewd methods of news-gathering, methods which enabled them to judge more quickly and more accurately than could the masses the rise or the fall of securities. Some of these interests thus heard of the signing of the Treaty of Ryswick in 1697 one day before the English ambassador arrived with the

³ Quoted in Day, Clive. *A History of Commerce*, p. 151.

announcement, and immediately they began to buy bank stock. Because, when the news of peace became public, stock rose from eighty-four to ninety-seven, the speculators made a nice little profit through their secret information. Ethics could scarcely condemn that procedure, but ethics could scarcely do otherwise for the interests which sent a well-dressed man riding furiously through the London streets with the cry: "The Queen is dead! The Queen is dead!" Prices fell, and the Jews on the exchange bought eagerly. But in a little while Queen Anne appeared not yet ready for her own funeral. Prices then went up, and the Jews reaped a nice little profit. Perhaps Josiah Child was one of the most famous of these unscrupulous stock jobbers. He would employ one set of brokers to spread bad news and sell some of his stock to bolster up the rumor, but another set "with privacy and caution" would buy for him, thus bringing him a financial reward for his lies. Possibly a few weeks later he would spread good news in order to unload some stock at high prices, and later when the falsity was established he might buy back stock at a profit or merely pocket his ill-gotten gains.

In 1711 the notorious South Sea Company was established in England as a trading corporation. It had obtained the right to send slaves to the Spanish colonies and had a whale fishery of considerable promise. The directors of the company even offered to lend the government £7,500,000 to apply on the national debt. At one time the stock of the company was ten times par, but soon the weakness of the scheme appeared and in 1721 the company collapsed, ruining thousands of credulous shareholders.

Yet the South Sea Company was only the greatest of numerous English undertakings. One company with a capital of three million pounds was formed to "insure masters and mistresses the losses they may sustain by servants." Other companies were formed for turning salt water into fresh, for trade in false hair, for obtaining silver from lead, for "a wheel of perpetual motion," for losses against burglars, for insurance "from Death by drinking Geneva," and for "planting mulberry trees and breeding silk-worms in Chelsea Park." One company was formed for importing "a number of large

jackasses from Spain in order to propagate a larger kind of mule in England," "as if one writer remarked there were not already a large enough number of jackasses in London alone." The abundance of capital and the optimistic spirit of the period appear in the success of a promoter who announced a company "for an undertaking which shall in due time be revealed." Before noon he obtained two thousand guineas and departed for a destination which was not revealed.

Shortly before the English crisis one of somewhat similar character occurred in France. John Law, a Scotch banker and financier of considerable ability, organized the Company of the West, later known as the Company of the Indies. It obtained a monopoly of trade, mining, land grants, and slavery in Louisiana. But it attempted to unite with speculative commercial undertakings the far more speculative financing of a government. All classes seemed affected by the fever of speculation. Two of the brainiest scholars in France condemned Law's schemes and a little later they bid against each other for stock. Poor people, as coachmen, cooks, and waiters, entered the ranks of the millionaires by lucky speculation, and even trades people made fortunes merely by renting their stalls or chairs which happened to be located in the street where the exchange was held. The rapid rise in the price of the stock frightened Law, who tried to check speculation, but he soon found he could control neither the rise nor the fall of the stock. The resulting crash was serious because a large part of the country's currency was made up of notes issued by the bankrupt company. Still another evil effect was the great difficulty encountered for years by promoters of legitimate enterprises.

Money.—The discovery of America supplied Europe with enough gold and silver to establish definite coinage relations. The amount obtained from Mexico and South America between 1493 and 1800 has been estimated as approximately 2,500,000 kilograms of gold and 90,000,000 to 100,000,000 kilograms of silver.⁴ Coinage of silver naturally increased sharply, spreading all over Europe. The predominance of silver lasted until the exploitation of the gold deposits of Brazil, the

⁴ See Weber, Max. *General Economic History*, p. 249.

first half of the eighteenth century. During the gold period, England, despite the advice of Isaac Newton and others to the contrary, adopted the gold standard. Silver production came to the front once more during the last half of the eighteenth century and influenced the French Revolutionists to adopt the double standard.

The technique of coinage revealed marked improvements. During the sixteenth century mechanical methods of rolling, cutting, and minting became effective. In England Queen Elizabeth had reformed the coinage standard, but until the time of Charles II silver money had been cut with shears and shaped and stamped with a hammer. Clipping and shearing, consequently, were practiced, coins at times being reduced to half their weight. The government of Charles II issued coins with ribbed or milled edges. The new coining processes virtually everywhere met the opposition of the moneyers' guilds and other selfish interests, but overcame it in the seventeenth century. Boulton in 1786 applied steam power to the minting of coins. The development of various chemical processes in the treatment of raw metals likewise aided in developing the technique of coinage. Coins now became uniform and the cost of their striking which as late as the eighteenth century ranged from ten to twenty per cent of the coin value fell, now being less than one-third of one per cent for gold coins.

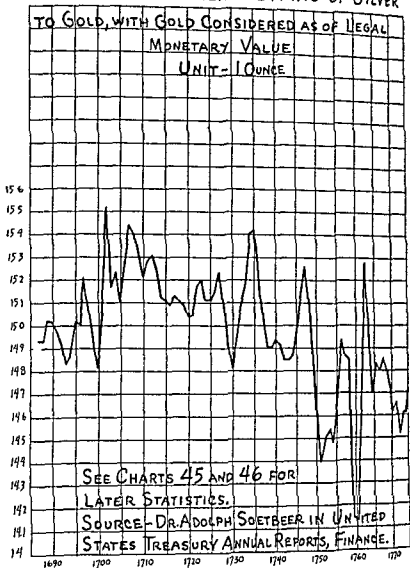
The difficulties of ratios, of course, continued. Sir Isaac Newton fixed the typical English gold coin, the guinea, at twenty-one shillings in 1717. That ratio overvalued gold which flowed in, and silver continued to flow out as in the past. The government then made gold the standard metal, reducing silver to the position of a subsidiary coinage. In order to keep it in circulation it was deprived of unlimited legal tender, was alloyed rather heavily, and was coined at more than bullion value.

Stabilization of the two metals seems to have been more successful in France than in England. The basis of the French double standard was silver, a thousand francs being coined from nine pounds of silver at a ratio of $15\frac{1}{2}$ to 1. The domestic demand for coin, far heavier than in England, brought

about a fairly stable relation between the two metals for a considerable period of time.

The most spectacular paper money of the period was the

CHART NO. 2 - COMMERCIAL RATIO OF SILVER



French assignat, a short-time note based on confiscated church and crown lands. The National Assembly in December, 1789, provided for 400,000,000 livres of five per cent treas-

ury bills. They were in large denominations for discount purposes with the Caisse d'Escompte which enjoyed the exclusive right to issue legal tender notes. The assignats were to be used in paying for the national land and were to be destroyed when received. Automatic withdrawal, however, was not provided for when other media of exchange were used in paying for the land. In April, 1790, the interest rate was lowered to three per cent and the notes were made legal tender but without the requirement that they be accepted at par. In September of the same year old and new assignats alike were made non-interest bearing and small denominations were printed. Thereafter issues and evils multiplied, with some fluctuations the value of the notes steadily declining despite such harsh penalties as death for those who refused to accept them at face value or discriminated against them in selling coin. People with fixed incomes and the workers, as always, suffered from rising prices. Riots increased in 1792 and in some cases peasants refused to take their products to the city markets lest they be forced to accept declining paper. On February 19, 1796, the government publicly destroyed the printing presses, but the damage remained, approximately thirty-six billion livres of assignats being in circulation in March of that year.

In the same month, 2,400,000,000 francs of land notes were authorized. The price of the public lands offered for sale was fixed at a multiple of the 1790-yield. The public, however, refused to accept any paper money and the government hastened depreciation by requiring "the redemption of 30 livres of assignats for one franc in land notes." At the beginning of their issue they were worth only one-fifth of their face value and at the close of the year only one-fortieth. The government was, because of the close connection between the notes and the land, selling land for only the worth of a few trees on it. Law on February 4, 1797, consequently, "authorized the exchange of 100 francs in land notes, or, by implication, 3000 livres in assignats for a gold franc." Debts of the inflation period were revalued according to local tables and the commodity prices prevailing in the various localities.⁵

⁵ See Salvemini, G. in *The Encyclopaedia of the Social Sciences* (The Macmillan Company, New York, 1930) Vol. II, pp. 279-281.

Mercantilism.—During this period commerce became national, for the feudal system declined, and kings with national armies took the place of the old feudal armies. Taxes in England, a sign of developing national power, yielded only a half million pounds in the sixteenth century, but toward the close of the eighteenth century eighty times as much. In a century the Prussian taxes increased twenty-eightfold. All over Europe taxes were increasing. In distant commerce the prize went to the best fighters, or those most adequately supported by taxation, rather than to the best producers. Holland in an eighty-year war with Portugal and Spain broke their power in the East. England won India because she gave the military protection which France had refused. Between 1688 and 1815 England, in truth, spent more than half the time in wars which ranged from seven to a dozen years in length. And those wars made her supreme in commerce.

Foreign commerce was considered more important than was either agriculture or manufactures, for it furnished money, "the sinews of war," and thus gave a nation strength. With few mines of gold or of silver the European nations believed that the necessary funds would come only from foreign trade; hence the supply of money was the essential feature in the doctrine of mercantilism.

European states naturally varied widely in their practice of mercantilism, or the replacement of local units by strong national governments, but the main points, especially as worked out in England, were:

1. The protection and encouragement of home industries.
2. The accumulation and retention of a large amount of money in the country.
3. The protection and aid of native grain growers in order that the country might always be able to feed her own population without aid from other countries.
4. The encouragement of shipping in order that ships and sailors would always be available for the formation of an efficient navy.

To tell just when mercantilism became the guiding principle of state policy or when it lost that position is almost impossible. Travers Twiss dates the period by the accession of

Charles I to the throne of Spain in 1516, for he began retaliatory acts against Venice's commercial monopoly. In 1613, Serra, an Italian writer, developed for the first time the doctrine in a systematic form in his book, *A Brief Treatise on the Causes which make Gold and Silver abound in Kingdoms where there are no Mines*. Sir William Petty in his *Essays in Political Arithmetic*, 1655, Thomas Munn in his *England's Treasure by Forraign Trade*, 1664, and Sir Josiah Child in his *Discourses upon Trade*, 1691, were early advocates of the idea that gold and silver could be obtained by the exportation of more products than were imported.⁶

Governments at first sought to retain their gold and silver by prohibiting, in the so-called "bullionist" policy, their exportation. This policy proved ineffective and even detrimental, especially in the trade with the East, for the foreigners demanded the precious metals. The governments, consequently, gave up prohibition and attempted restriction, namely, the discouragement of imports, for if imports were prohibited, or at least greatly restricted, less money would go out of the country. On the other hand, the exports were encouraged, for they would tend to bring money into the country. Home industries, moreover, were often stimulated because they lessened the necessity of imports or increased the materials for export. Shipping and the fisheries, too, were stimulated because they helped to produce a favorable balance of trade, or an excess of exports over imports, and because they acted as feeders for the national navy, thus increasing the strength of a country in time of war.

This mercantile system had important effects, but the control of the distribution of precious metals was not one of them. From the New World gold and silver went to Spain and from that country they went to the countries where they were needed. Each state under mercantilism attempted to develop a self-sufficing life as had the manors and the towns of an earlier period, and the influence of that policy is seen even now in national protection. Still another effect of mercantilism appeared in foreign relations. Nations tended to be friendly

⁶ See Haney, L. H. *History of Economic Theory* (The Macmillan Company, New York, 1930) p. 112 for Child's statement.

with other nations when they had the so-called favorable balance of trade and unfriendly when the balance was unfavorable. England was thus on friendly terms with Portugal because that country bought her manufactures and supplied her with wines and other commodities which she could not produce, but England was hostile to France in part at least because her trade balance was consistently unfavorable. Mercantilism also developed the view that colonies existed for the benefit of the mother country, namely, that the colonies should produce the things which the mother country wanted and buy the things which the mother country had to sell. Ordinarily the industries were, if possible, kept from competing, but if either suffered the colony rather than the mother country was the loser.

SELECTED REFERENCES

Culbertson, W. S. *International Economic Policies* (New York, D. Appleton and Company, 1931) Chapter VI

Cunningham, William in *The Cambridge Modern History* (Cambridge, The University Press, 1902) Chapter XV

Higgs, Henry, in *The Cambridge Modern History* (Cambridge, The University Press, 1901) Vol. VIII, Chapters III and XXIII

List, Friederich (S. S. Lloyd Translation). *The National System of Political Economy* (London, Longman's Green and Company, 1928) Book III, Chapter XXIX.

Monroe, A. E. *Early Economic Thought* (Cambridge, Harvard University Press, 1924) Numbers VII-IX

Nussbaum, F. L. *A History of the Economic Institutions of Modern Europe* (New York, F. S. Crofts and Company, 1933) Part III

Schmoller, Gustav. *The Mercantile System and Its Historical Significance* (New York, The Macmillan Company, 1910).

Weber, Max (Frank H. Knight Translation). *General Economic History* (New York, Greenberg, 1927) Chapters XXIII-XXVI.

CHAPTER XVIII.

FOREIGN AND INTERNAL TRADE

Decline of the Italian Cities.—Venice supplanted Constantinople in commerce, but the new routes ruined the Italian cities. Venice tried to purchase from Portugal the right to sell all eastern spices and when Portugal refused that right she traded small lots on the Portuguese terms. For a while Venice meditated a canal through the Isthmus of Suez and she long sent explorers to the East, but after Cairo was captured by the Turks in 1517 she lacked the strength to maintain her old connections. In the eastern Mediterranean she was maintaining a losing struggle with the Turks. Forced to move her staple from Alexandria to Cyprus, she lost that island in 1571. Lepanto was a barren victory for her. Through Aleppo she drew wares from Bagdad, Persia, and India by the caravan route, but her total trade in 1797, when she lost her independence, scarcely placed her in the second rank of states.

Florence soon found the northern markets closed by the Dutch Revolution, religious wars, and protection. Only in Leghorn outside of the Tuscan tariff barrier was there prosperity and the gains of commerce there went chiefly to foreigners. Roman territory to the south was bankrupt, for the Spanish government wasted the resources and the Turks ravaged the coast and kidnaped slaves. Heavy taxes crushed all industry. In the middle of the eighteenth century north of Tuscany numerous tariff barriers interfered with trade which was dominated largely by foreigners.

Trade of the German Cities.—At the close of the Middle Ages most of the commerce was in the hands of the Hanseatic League, but the power of that organization was waning. In the south, too, trade was declining, partly because of the discov-

ery of the new ocean route to India. Nuremberg, Augsburg, Ulm, and other cities fought desperately to maintain their trade even when they could no longer get Oriental wares from Italy, but Italians managed to drive many of the Germans out of business. Some of the Germans then sought prosperity in other countries or in new enterprises, and in Portugal many shared for a while in the eastern trade and as financiers participated in the profits of the new world enterprises.

Germany continued to decline primarily through political weakness. Within a short while Holland controlled the mouth of the Rhine, Sweden dominated the Weser and the Oder, Denmark controlled the Elbe, and Poland dominated the Vistula. Cities, desirous of taxes, to the infinite injury of commerce tried to force all goods to come through them. After the Thirty Years' War the various means of transportation declined, dikes, tow-paths, and river banks being allowed to decay and sandbars and snags to accumulate.

Although the eighteenth century thus was marked by decline, German ships even tending to disappear from the sea, here and there a city might prosper. Frankfort-on-the-Main and Leipzig, for example, built up a profitable financial business in bills of exchange, currency, and commercial loans, and Hamburg and Bremen during the American Revolution became important as neutral carriers, passing the Dutch.

Possibly the most prosperous of the German states was Prussia. William II had declared: "Our future lies upon the water." Frederick the Great a century later actually founded some trading companies. Many tolls and staples, moreover, were swept away and the complicated tariff systems were revised. Industry, too, was stimulated.

Austria was industrially behind Prussia. Provincial tariffs and the varying racial characteristics handicapped commerce. Yet Trieste and Fiume were declared free ports, Venice was compelled to give up her claim to the exclusive navigation of the Adriatic, consuls were sent out, and efforts were made to engage in the trade with India. Commercial treaties, too, were made with several states, including Turkey and Russia. But foreign trade was monopolized by five companies, one being limited to Asia Minor, a second to Turkey, a third to

such colonial wares as sugar, a fourth to the exportation of linens, and the fifth to the exportation of various raw materials to Italy, France, and Spain.

The Austrian rule gradually introduced into Bohemia greater security for life and property. Foreign merchants came to the country in large numbers, native merchants increased, and the volume of trade grew, for the country, with good roads, judged by the standard of the day, and navigable rivers, was well situated for trade. Consequently it carried on commerce with Italy, Germany, France, and other west and south European countries and had contact with the Baltic region and the East. Its exports consisted of products of the soil and some of the finer manufactures; its imports consisted of spices, luxury goods, and some raw materials.

The Rise and Fall of Portugal.—Portugal developed in the sixteenth century an empire which rivalled that of Spain and exceeded in importance that of any of the northern nations. In 1499 Da Gama returned to Lisbon with a cargo which repaid sixtyfold the cost of the expedition. In 1500 Cabral and in 1503 Albuquerque followed the trail blazed by Da Gama and year after year other Portuguese fleets sailed to India, Ceylon, Malacca, Java, Sumatra, Celebes, the Spice Islands, and China, bringing back eastern products; hence Portugal for a while held the scepter which was slipping from Venice.

But Portugal's triumph was short-lived. In 1580, Philip II annexed the country to Spain and the enforced union lasted until 1640. It caused disaster, for Philip was at war with England, France, and Holland; hence Lisbon soon was closed to their trade. Of the 806 ships which sailed to India, 1497-1612, only 186 went after absorption by Spain, for England broke Portugal's power in India and Holland crushed that power in the East Indies. Heavy taxes, as in Spain, also played a part in the decline of Portugal, but other factors, such as her small size and undeveloped industry, were likewise important.

After Portugal had thrown off the yoke of Spain, she had only Brazil to help in the development of her commerce, and from that region she did succeed in expelling the Dutch. The discovery of gold stimulated the trade somewhat, the commerce of the closing part of the eighteenth century being

ery of the new ocean route to India. Nuremberg, Augsburg, Ulm, and other cities fought desperately to maintain their trade even when they could no longer get Oriental wares from Italy, but Italians managed to drive many of the Germans out of business. Some of the Germans then sought prosperity in other countries or in new enterprises, and in Portugal many shared for a while in the eastern trade and as financiers participated in the profits of the new world enterprises.

Germany continued to decline primarily through political weakness. Within a short while Holland controlled the mouth of the Rhine, Sweden dominated the Weser and the Oder, Denmark controlled the Elbe, and Poland dominated the Vistula. Cities, desirous of taxes, to the infinite injury of commerce tried to force all goods to come through them. After the Thirty Years' War the various means of transportation declined, dikes, tow-paths, and river banks being allowed to decay and sandbars and snags to accumulate.

Although the eighteenth century thus was marked by decline, German ships even tending to disappear from the sea, here and there a city might prosper. Frankfort-on-the-Main and Leipzig, for example, built up a profitable financial business in bills of exchange, currency, and commercial loans, and Hamburg and Bremen during the American Revolution became important as neutral carriers, passing the Dutch.

Possibly the most prosperous of the German states was Prussia. William II had declared: "Our future lies upon the water." Frederick the Great a century later actually founded some trading companies. Many tolls and staples, moreover, were swept away and the complicated tariff systems were revised. Industry, too, was stimulated.

Austria was industrially behind Prussia. Provincial tariffs and the varying racial characteristics handicapped commerce. Yet Trieste and Fiume were declared free ports, Venice was compelled to give up her claim to the exclusive navigation of the Adriatic, consuls were sent out, and efforts were made to engage in the trade with India. Commercial treaties, too, were made with several states, including Turkey and Russia. But foreign trade was monopolized by five companies, one being limited to Asia Minor, a second to Turkey, a third to

such colonial wares as sugar, a fourth to the exportation of linens, and the fifth to the exportation of various raw materials to Italy, France, and Spain.

The Austrian rule gradually introduced into Bohemia greater security for life and property. Foreign merchants came to the country in large numbers, native merchants increased, and the volume of trade grew, for the country, with good roads, judged by the standard of the day, and navigable rivers, was well situated for trade. Consequently it carried on commerce with Italy, Germany, France, and other west and south European countries and had contact with the Baltic region and the East. Its exports consisted of products of the soil and some of the finer manufactures; its imports consisted of spices, luxury goods, and some raw materials.

The Rise and Fall of Portugal.—Portugal developed in the sixteenth century an empire which rivalled that of Spain and exceeded in importance that of any of the northern nations. In 1499 Da Gama returned to Lisbon with a cargo which repaid sixtyfold the cost of the expedition. In 1500 Cabral and in 1503 Albuquerque followed the trail blazed by Da Gama and year after year other Portuguese fleets sailed to India, Ceylon, Malacca, Java, Sumatra, Celebes, the Spice Islands, and China, bringing back eastern products; hence Portugal for a while held the scepter which was slipping from Venice.

But Portugal's triumph was short-lived. In 1580, Philip II annexed the country to Spain and the enforced union lasted until 1640. It caused disaster, for Philip was at war with England, France, and Holland; hence Lisbon soon was closed to their trade. Of the 806 ships which sailed to India, 1497-1612, only 186 went after absorption by Spain, for England broke Portugal's power in India and Holland crushed that power in the East Indies. Heavy taxes, as in Spain, also played a part in the decline of Portugal, but other factors, such as her small size and undeveloped industry, were likewise important.

After Portugal had thrown off the yoke of Spain, she had only Brazil to help in the development of her commerce, and from that region she did succeed in expelling the Dutch. The discovery of gold stimulated the trade somewhat, the commerce of the closing part of the eighteenth century being

twenty times that of the early seventeenth century. Perhaps a hundred ships then sailed yearly for America, returning with gold, diamonds, brazil-wood, hides, tobacco, and sugar, but the gains of commerce went largely to foreigners. England in 1754 furnished Portugal with two-thirds of her necessities, and even the wares sent to Brazil, such as woolens, hats, linens, stockings, gloves, and metals, were largely English. The Methuen Treaty of 1703 provided that English woolens should be allowed to enter Portugal and her possessions free if Portuguese wines were admitted into England on payment of customs duties equal to two-thirds of the duties charged French wines. Wine, called "port" from Oporto, the point of shipment, was the only national industry and it was largely under the control of English merchants. Pombal, the famous Portuguese statesman, tried hard to shake off the foreign hold on trade, but even he could accomplish little.

The Rise and Fall of Spain.—The union of Castile and Aragon, the completion of the war against the Moors, and the discovery of America laid the basis for Spanish grandeur. For a while all industry in Spain naturally flourished. The country exported woolens and silks, salt, soap, and other manufactures. Each year more than a hundred large ships left for her colonies and as many more left for various European ports.

Prosperity, however, did not last long. In 1594 Spain's population numbered nine millions, decline already having started, and in 1723 it numbered only six millions. Quality also decreased, beggary and vagrancy becoming a wide-spread curse. The Inquisition, the expulsion of the Jews, 1492, leaders in trade and manufactures, and the undue favors showered on the Mesta all were factors in the decline. Then, too, the wars of incompetent rulers wasted Spanish resources and the opposition of the government to office-holding by commercial classes bore a part. For the wars taxes were, of course, necessary. In 1594, so it is said, taxes amounted to thirty per cent of the value of the property. Farmers, unable to make a living, left Spain or went to prison. Commerce, if lucky, got off with a tax of something less than a hundred per cent. The "alcabala," presumably a tax of ten per cent on a product when it was bought and sold, was raised until it

stopped all profits. Customs duties were high, but smuggling thrived through the corruption of guards. The government, too, by favors to foreigners allowed products to enter the country at a fourth of the duties charged native merchants. Native shipping, outside of the protected colonial trade, thus dwindled away. During the seventeenth century, moreover, internal tariff duties prevented commerce from flowing freely from province to province, no serious breaks being made in the system until 1717.

Still another important cause of failure appeared in the colonial trade policy. The "palmeo," an export tax levied on goods in proportion to their bulk, encouraged the exportation of foreign manufactures, but virtually stopped the coarser and heavier Spanish exports. Ships sailing for America were required to sail either from Seville or Cadiz at a specified time and to land at Porto Bello or Vera Cruz. In many years of the eighteenth century, not two fleets, but no fleet, sailed for the New World. Upon reaching America the cargo might be sold for a great advance, but it was more likely to be sold at a sacrifice, for there was little in the way of a market, the government having adopted the definite policy of discouraging emigration. Natives, though men without beards, were compelled to buy razors and those approximating a state of nature were required to purchase silk stockings. Although such forced sales at high prices helped Spain little, Spanish fruits, cloth, iron, quicksilver, and other products were exchanged for American gold and silver, sugar, hides, cochinilla, indigo, vanilla, cocoa, mate, quinine, and other drugs.

The government policy was defeated in part because of smuggling. Foreigners, especially the English and the Dutch, attempted to absorb the Spanish trade. In 1713 by the Treaty of Assiento England obtained the right to supply the Spanish colonies with slaves at the rate of five thousand a year for a period of thirty years. The English, moreover, obtained the right to send a five hundred-ton ship yearly to the Spanish colonies, a privilege which was abused by enlarging the capacity of the vessel and by sending transports to carry even more cargo. The English, in fact, seemed to be as scheming as was the recent tradesman who put a box

twenty times that of the early seventeenth century. Perhaps a hundred ships then sailed yearly for America, returning with gold, diamonds, brazil-wood, hides, tobacco, and sugar, but the gains of commerce went largely to foreigners. England in 1754 furnished Portugal with two-thirds of her necessities, and even the wares sent to Brazil, such as woolens, hats, linens, stockings, gloves, and metals, were largely English. The Methuen Treaty of 1703 provided that English woolens should be allowed to enter Portugal and her possessions free if Portuguese wines were admitted into England on payment of customs duties equal to two-thirds of the duties charged French wines. Wine, called "port" from Oporto, the point of shipment, was the only national industry and it was largely under the control of English merchants. Pombal, the famous Portuguese statesman, tried hard to shake off the foreign hold on trade, but even he could accomplish little.

The Rise and Fall of Spain.—The union of Castile and Aragon, the completion of the war against the Moors, and the discovery of America laid the basis for Spanish grandeur. For a while all industry in Spain naturally flourished. The country exported woolens and silks, salt, soap, and other manufactures. Each year more than a hundred large ships left for her colonies and as many more left for various European ports.

Prosperity, however, did not last long. In 1594 Spain's population numbered nine millions, decline already having started, and in 1723 it numbered only six millions. Quality also decreased, beggary and vagrancy becoming a wide-spread curse. The Inquisition, the expulsion of the Jews, 1492, leaders in trade and manufactures, and the undue favors showered on the Mesta all were factors in the decline. Then, too, the wars of incompetent rulers wasted Spanish resources and the opposition of the government to office-holding by commercial classes bore a part. For the wars taxes were, of course, necessary. In 1594, so it is said, taxes amounted to thirty per cent of the value of the property. Farmers, unable to make a living, left Spain or went to prison. Commerce, if lucky, got off with a tax of something less than a hundred per cent. The "alcabala," presumably a tax of ten per cent on a product when it was bought and sold, was raised until it

stopped all profits. Customs duties were high, but smuggling thrived through the corruption of guards. The government, too, by favors to foreigners allowed products to enter the country at a fourth of the duties charged native merchants. Native shipping, outside of the protected colonial trade, thus dwindled away. During the seventeenth century, moreover, internal tariff duties prevented commerce from flowing freely from province to province, no serious breaks being made in the system until 1717.

Still another important cause of failure appeared in the colonial trade policy. The "palmeo," an export tax levied on goods in proportion to their bulk, encouraged the exportation of foreign manufactures, but virtually stopped the coarser and heavier Spanish exports. Ships sailing for America were required to sail either from Seville or Cadiz at a specified time and to land at Porto Bello or Vera Cruz. In many years of the eighteenth century, not two fleets, but no fleet, sailed for the New World. Upon reaching America the cargo might be sold for a great advance, but it was more likely to be sold at a sacrifice, for there was little in the way of a market, the government having adopted the definite policy of discouraging emigration. Natives, though men without beards, were compelled to buy razors and those approximating a state of nature were required to purchase silk stockings. Although such forced sales at high prices helped Spain little, Spanish fruits, cloth, iron, quicksilver, and other products were exchanged for American gold and silver, sugar, hides, cochinitilla, indigo, vanilla, cocoa, mate, quinine, and other drugs.

The government policy was defeated in part because of smuggling. Foreigners, especially the English and the Dutch, attempted to absorb the Spanish trade. In 1713 by the Treaty of Assiento England obtained the right to supply the Spanish colonies with slaves at the rate of five thousand a year for a period of thirty years. The English, moreover, obtained the right to send a five hundred-ton ship yearly to the Spanish colonies, a privilege which was abused by enlarging the capacity of the vessel and by sending transports to carry even more cargo. The English, in fact, seemed to be as scheming as was the recent tradesman who put a box

labeled, "For the Blind," just outside his store and with the money thus obtained bought a canvas blind to shelter his shop window.

About the middle of the eighteenth century Spain attempted to revise her commercial system. Spanish merchants were allowed to ship their products independent of the fleets, which, in 1748 were dropped. Restrictions with regard to intercolonial trade also were abolished and several new ports were opened to commerce. In a decade, consequently, trade increased eightfold, but the reform came too late to aid Spain. By the close of the eighteenth century she had returned to her rank in the fifteenth, namely, a supplier of such raw materials as salt, wool, fruits, and nuts, and such partially manufactured materials as wine, soda, oil, soap, and iron, and an importer of the finished manufactures which her upper classes were able to purchase and to consume.

The Rise and Fall of Dutch Commerce.—The Dutch were rich in the capacities of their people and in 1581, after the tide of war had turned in their favor, they drew up a formal declaration of independence from Spain. In 1609 Philip III of Spain agreed to a twelve years' truce and the Treaty of Westphalia in 1648 recognized Dutch independence.

The Dutch had revolted from Spain because of political, religious, and commercial oppression, heavy taxation being an important factor. Driven to the sea of necessity they had made numerous voyages and had tried to open new routes of trade. Vainly they had sought to reach India by sailing to the north of Europe. Later they explored the southern hemisphere, naming such places as Tasmania, Van Diemen's Land, and New Zealand. From 1602 to 1615 the Dutch captured 545 Portuguese and Spanish ships, seized ports in Africa and India, and obtained a hold in the Spice Islands. They also seized parts of America, for the voyage of Henry Hudson in 1609, settlements from 1621 on, and the capture of New Sweden in 1655 gave Holland territory which she held until the English seized it in 1664. Even in South America from 1624 to 1654 Holland controlled Brazil.

During the sixteenth century the Dutch developed an important carrying trade. To Spain and France they carried

cloth, tar, timber and grain and to the Baltic countries they transported the wines and the liquors of southwestern Europe and products from the Portuguese East Indies. During the seventeenth century they virtually monopolized the Asiatic carrying trade and that between southwestern Europe and the Baltic. More than half of the Dutch ships in that century sailed for some port on the North Sea or the Baltic Sea, and in 1640 nearly half of the 3450 ships sailing through the Sound into the Baltic were Dutch. Nearly two score Dutch ships, moreover, visited Archangel yearly. After 1648 the Dutch carried each year about fifteen thousand bales of wool to the northern countries from Spain, or five times as much as the English and French together carried. The Dutch fisheries used about two thousand boats and were perhaps more valuable than were the combined English and French manufactures, and perhaps were equal to the Dutch commerce. In fact, the Dutch with fifteen or sixteen thousand ships owned three-fifths of all European vessels. In the seventeenth century Dutch commerce attained a value which was not reached by the English until 1740.

But Holland could not hold the position won. Her resources were too small and gradually she yielded to the superior strength of England. The Dutch likewise failed to work well together, cities exercising too much power and family rings in the government bringing favoritism and high taxes. On the whole, the commercial policy proved to be almost as narrow as was that of Spain and the government proved to be almost as corrupt as was that of Spain. The use, moreover, of great companies which exercised a minute regulation of trade prevented efficiency and stimulated unduly the evil use of political and personal influence.

The Dutch West India Company, organized in 1621, was short-lived. For a while it paid high dividends, but it was little more than a gang of pirates, actually opposing peace with Spain in 1633. When the Dutch lost their possessions in Brazil and New Netherlands, the company was soon dissolved, but on the west coast of Africa and from small islands in the Gulf of Mexico some trade was continued.

The East India Company had a longer and a more profitable

existence than did the West India Company. In the Spice Islands and in Java it established stations, gaining a virtual monopoly of such articles as tea, coffee, pepper, sugar, mace, nutmegs, indigo, and cloves and trafficking, too, in the cotton and silk textiles of Persia and India and in indigo, shellac, borax, saltpeter, fine woods, and other products. It sold wares which appeared to cost it little or nothing for high prices, but it was compelled to support civil and military establishments. Its administration was corrupt and inefficient. After 1700, though its reputation was sufficiently good to hide its condition by paying dividends regularly out of borrowed money, dividends which ranged from about twelve and a half per cent to four times that amount and averaged more than eighteen per cent from 1602 to 1796, the company declined rapidly. In 1798 it was dissolved, the national government assuming the debts to the amount of more than fifty million dollars.

France's Struggle for Commercial Supremacy.—At times, as in the fifteenth century, commerce might blossom out, occasional merchants attaining prominence in foreign trade. In 1450, for example, Jacques Coeur owned a silk factory in Florence, transacted business in England, exported cloths and other merchandise to the East, and imported silkstuffs and spices from the East by way of Egypt. Verrazano and Cartier likewise showed French interest in sixteenth-century exploration and commerce. In 1504 French fishing vessels of Brittany visited Newfoundland, and in 1578 France had 150 out of the 350 vessels in the Newfoundland fishing fleet, or as many as Spain and England combined. First of all European countries, too, France obtained a modern "capitulation" from the Sultan prescribing on what conditions foreigners could trade in Turkish territory.

Henry IV and his able minister, Sully, following a period of decline, brought another ray of light by saving France temporarily. The former sent Champlain to Canada, Port Royal (Annapolis) being founded in 1604 and Quebec in 1608; he likewise planned an East India Company to rival the companies formed by England and Holland; he signed a favorable commercial treaty with Turkey; and in 1604 he convoked an

assembly of commerce. Sully laid out many roads and perhaps conceived the canal system which since has been developed.

Richelieu likewise stimulated commerce. He declared that no longer should a noble forfeit his title by engaging in commerce, and he was responsible for the formation of great commercial companies which traded in Canada, the West Indies, Guinea, the west coast of Africa, Madagascar, East India, and the Malay Archipelago. Colonies, too, were encouraged, discharged soldiers and poor girls being sent to the colonies to increase the population growth with the result that in a score of years, 1660 to 1680, the population of Canada increased from 2500 to four times that number.

Colbert also attempted to develop commerce. He reduced the number of provincial tariffs, declared Dunkirk, Bayonne, and Marseilles free ports, stimulated the exportation of wines and brandies, set up bonded warehouses, where, if reexportation occurred, duties already paid might be refunded, allowed foreign merchants a free passage through the provinces, constructed new roads and repaired old ones, and encouraged canals, of which Languedoc, connecting the Mediterranean and the Atlantic by way of the Garonne, was the most important. In 1665, moreover, he revived the Council of Commerce. He tried to stimulate shipbuilding by use of bounties. He also attempted to compete with Dutch and English trading companies by the establishment of similar companies,—West Indies, the North, the Levant, and Senegal. Colbert tried to revive the colonial system. He bought Guadeloupe, Martinique, St. Lucia, and some other islands of the Lesser Antilles, assumed the protection of the French buccaneers who had seized the eastern part of St. Domingo, sent colonies to Cayenne, seized Newfoundland, began the occupation of Louisiana, and in Africa wrested Goree from the Dutch and occupied the eastern shores of Madagascar.

With the wars of Louis XIV, the persecution of the Huguenots, the various tariffs, the excessive privileges of clergy and nobles, and the rivalry with the English France declined both in territory and in prosperity. After 1726, although commerce was no longer injured by the changes in the specie,

diverse weights and measures still handicapped it, and until its abolition in 1770 the India Company by its commercial privileges injured private merchants.

But, considering all of the handicaps, French commerce was remarkably prosperous, being worth in 1716 about \$43,000,000 and in 1787 about \$230,000,000. Europe at both periods had more than two-thirds of the values, less in 1787 than in 1716. Most of the remaining commerce was with America, only small amounts being with Asia and Africa. For a while the Sugar Colonies of the New World proved "veritable gold mines," far more valuable than Canada which was ceded to the British at the close of the Seven Years' War.

The Mastery of the English.—As Antwerp and other Flemish towns declined, London increased in commercial importance. Gradually the native English assumed control of their foreign trade. The yearly visits of the Venetian fleet finally ceased in 1587, when the fleet was wrecked off the Isle of Wight. In 1551 the government of Edward VI rescinded the charter of the Hansards, which, though restored by Mary, came to a definite end in 1597.

The government consistently sought to increase trade. Treaties with Holland, Florence, Portugal, and Spain reveal that effort. The calling in of the old coinage, debased, counterfeited, and clipped, and the issuance of a new and milled-edge currency likewise aided trade. The establishment of the Bank of England in 1694 and the union with Scotland in 1707 also promoted trade. The encouragement of roads and canals likewise carried commercial implications and the development of her colonial empire gave a mighty impetus to trade.

During Elizabeth's reign, thanks to her bold sea captains, new regions were opened to commerce. Hugh Willoughby's expedition, though failing in the search for a northern passage to India, had, under Richard Chancellor, reached Archangel and opened trade with Russia, the Russian Company being formed in 1554. Sir John Hawkins carried slaves from Africa to Brazil. Southampton merchants started a trade with Guinea, thereby obtaining gold dust and ivory. Bristol fishermen participated in the codfisheries of Newfoundland and English boats actively entered the Polar whale fisheries.

During the next century the gains of commerce continued. In 1600 the government allowed the famous East India Company a charter and the next year Captain Lancaster made the first regular trading voyage to India. Other companies, such as the Merchant Adventurers, the Levant, the Eastland, the Muscovy, and the Guinea or Royal African Company, continued or were formed to monopolize the trade with certain sections of the world. In the near-by regions, however, as France, Spain, Portugal, and Italy, no companies monopolized the trade, private merchants being free to trade as much as they pleased.

In 1613 the combined exports and imports of England were worth less than five million pounds, but by the close of the century they had more than doubled. By the middle of the eighteenth century they had doubled again and by the close of that century were worth about seventy million pounds. Exports throughout the period tended to exceed imports in value by a respectable margin. In 1700 European trade furnished about three-fourths of England's commerce and in 1800 it furnished about one-half. Especially rapid was the growth of the trade with America and Asia.

English textiles and numerous other manufactures went to the American colonies. English woolens went to nearly all of the European countries and other textiles and the metals generally were well received. To Asia gold and silver were sent and to Africa went gunpowder, rum, spirits, iron, beads, etc. Sugar made up approximately one-sixteenth of all imports about 1800. Tea, grain, Irish linen, cotton, coffee, wood, butter, tobacco, and hemp followed in order. Wool from Spain; hemp, tallow, and flax from Russia; iron, copper and wood from Scandinavia; tea, some of the coffee, cotton, and sugar from Asia; sugar, rum, indigo, and drugs from the West India Islands; skins, furs, lumber, and naval stores, rice, tobacco, and for a while codfish and whale oil from America; and negro slaves, gold, ivory, and wax from Africa were the chief imports.

With the development of her colonies England sought more and more to regulate commerce. The navigation acts, for all practical purposes, began in 1651. The act of that year de-

clared that goods from a European country could be taken to England only in English ships or in the ships of the country which produced the goods. It excluded foreign ships from the English coastwise trade and barred foreign fish from the English markets. Products of Asia, Africa, and America were to be carried into England or her colonies in English ships only. Other acts strengthened the policy, the one in 1660, among other things, providing that certain articles which England could not produce at all or in sufficient abundance,—sugar, tobacco, raw cotton, ginger, indigo, fustic, and other dye woods,—be sold to her alone. The Act of 1663 provided that articles used by the colonies be purchased from or through England, the chief exceptions being salt for the fisheries, native wines from Madeira and the Azores, and servants, horses, and home foods from Scotland and Ireland. From time to time the laws were modified, but the principles in general held. This restrictive policy, especially as applied to the Foreign West Indies, in connection with prohibition of manufactures, paper money, and western expansion proved an important cause of the Revolutionary War which cost England her colonies and furnished her only formidable rival in foreign trade.

Scandinavian Commerce.—Constant wars among Scandinavian countries, with the Hanseatic League, with Russia, or with some other country damaged both industry and trade, and the founding of commercial companies and the adoption of tariffs had little effect. Gustavus Adolphus of Sweden attempted to make the Baltic a Swedish lake and to start a colonial empire, but Denmark soon obtained control of the Sound and New Sweden, started after the death of Gustavus, passed to the Dutch in 1655 and then to the English in 1664.

Christian IV of Denmark erected a fort and levied toll on all boats which traded with Hamburg. He defeated the Hamburg fleet and after terrible suffering repelled an invasion of the Swedes. He attempted by means of the East India and Icelandic companies to open trade with Asia and Iceland. He promoted ship construction and founded a school for the art of navigation and developed cities, public buildings, and fortresses.

Toward the close of the seventeenth century Christian V established a College of Commerce, renewed the East India Company, and erected commercial houses for Iceland, the Faroe Islands, and Greenland. He increased the trade with the West Indies by acquiring St. Thomas and St. John. Fairs, or great markets, were encouraged. Uniform weights and measures were introduced and transportation and communication were improved. Yet much of the trade remained in the hands of foreigners and the exports were such crude products as iron, lumber, fish, grain, and amber. The imports were largely manufactures for the upper classes.

Swiss Commerce.—Swiss exports went to all of Europe. They included the various textiles, music boxes, a little machinery, wooden trinkets, dairy products, and watches. As early as 1725 there were in Constantinople eighty-eight Genevese commercial houses busied with the watch and jewelry trade. Great wealth, consequently, was accumulating in Geneva, which became one of the most important money markets of Europe. Genevese bankers enjoyed an international reputation, Necker and Gallatin being only two. To Switzerland, of course, despite hampering tariffs came the spices and the luxuries of the East, needed minerals and raw materials, and foodstuffs, as well as a miscellaneous array of products.

Russian Commerce.—Peter the Great attempted to improve transportation facilities and founded St. Petersburg, spending millions of rubles on protective jetties and cribwork. Because of the need for money he multiplied taxes in a confusing way, hats, boots, skins, inns, rented houses, cellars, chimneys, water, baths, nuts, cucumbers, water melons, beards, births, marriages, and dissent from the orthodox religion all being taxed. Peter even robbed the monasteries and churches; he increased the number of state monopolies, including in the list chalk, dice, fish, glue, oak, coffins, oil, playing cards, potash, resin, rhubarb, salt, tobacco, and vodka; and he clipped the coins and debased the coinage. He even tried to impose a tax on the male soul. Taxes increased from a little less than one and a half million rubles in 1680 to more than eight and a half million rubles in 1724. The inevitable result of such heavy

taxation was, of course, an increase in prices and the derangement of business.

Yet, on the whole, Russian commerce, centering at Vologda, Kazan, and Ninjni Novgorod, was fairly extensive. In 1653 De Rodes wrote:

It is well known to everybody that the energies of the country (Russia) are directed towards commerce and sale... All, from the lowest to the highest, are thriving upon commerce. In this respect the Russian people are more active than all other people taken together.¹

The merchants often obtained their wares at the markets, but many craftsmen carried their products to the mercantile warehouses. The wealthy merchants often imported goods from abroad and stored them in their warehouses. Moscow in 1769 is said to have had more warehouses than had Amsterdam. Storch described the system as follows:

The Russian artizans, with the exception of those in the great towns, made nothing to order; on the contrary, they made everything for sale—shoes, slippers, coats, fur coats, beds, blankets, tables, chairs—in brief, everything. All these things are delivered for a definite price to the merchants, who sell them in their warehouses. It is indeed difficult to get things made to order in the interior of Russia...but in the warehouses one may buy anything he desires, and even at a third of the price which the artizans may charge who make to order.²

The Russian merchants, seeking to keep their purchase prices as low as possible, insisted on freedom of trade throughout the sixteenth and seventeenth centuries.

The Strogonovs, a commercial family founded in the sixteenth century, boiled down salt, dealt in furs, and penetrated beyond the eastern frontier. Their capital attained a figure of 300,000 rubles, perhaps equivalent to 15,000,000 rubles now. At times, associations resembling the German cartels developed, large and small merchants combining to maintain export prices. As early as 1699 Peter the Great urged the merchants to form companies modelled after those of western Europe and to develop councils for the discussion of mercantile affairs. He sent caravans to Peking, a trip which required, including the return, three years. Throughout the eighteenth

¹ See Mavor, James *An Economic History of Russia* (J. M. Dent and Sons, London 1925) Vol. I, p. 119.

² See *Ibid.*, Vol. I, p. 119.

century, however, commerce was slight, commercial law was almost unknown, trading practices were half civilized, and the government interfered arbitrarily with commerce to its serious injury. Exports consisted mostly of raw materials. Imports from China consisted chiefly of tea, silk goods, and jewels, some of which were sent on to western Europe in exchange for such colonial wares as coffee, spices, sugar, and drugs, and for such finer manufactures as metals, paper, pottery, and textiles.

Commerce of Poland and the Balkans.—Little of the Polish trade was in the hands of natives, for a nobleman who engaged in commerce lost his rank, no professional classes existed, and peasants were held in such bondage by the nobles that they had little chance of engaging in trade. Thus Germans and Jews won the profits of commerce, the oldest documents of Cracow showing German names and proving that many of the merchants became wealthy.

Monopolies, poverty, poor transportation facilities, lack of a uniform circulating medium, debased coinage, and wars all interfered with trade in the Balkans. Yet here and there commerce thrived at times. During the days of Vlad, the "Impaler" or the "Devil," in Rumania, the last half of the fifteenth century, merchants with huge sums of money had no fear of travelling through Wallachia, for brigands were suppressed with a ruthless hand. In sixteenth-century Rumania, too, Genoese merchants carried on a lucrative trade in velvets and silks with the nobles. As early as the thirteenth century Bulgarians had developed a considerable commerce, "most-favored nation-clauses" appearing in their treaties. At times they would gain free entrance "by gate, bridge, or ford" with the right to sell or to buy everything within. Copper, gold, and silver coins show that there was a considerable demand for a medium of exchange. After the Turkish conquest, however, commerce gradually declined.

Like Bulgaria, Servia, prior to the conquest, had an important commerce. Merchants were accorded protection, and no noble, however exalted, could take a trader or his money. With the Turkish conquest came decline. Tens of thousands of Serbs migrated. Many, one hundred thousand, went to

Russia, about 1740, for a large tract of fertile territory on the Dnieper had been given to them. The commerce of Albania, Epirus, Bosnia, Montenegro, and other districts was small. In Bosnia and Herzegovina much of the trade fell into the hands of the Jews, who, as in other countries, abandoned agriculture for trade. The Turks did not obtain undisputed possession of Greece until 1715. In 1783 the Ottoman Greeks obtained the right to trade under the Russian flag. Toward the close of the eighteenth century, too, the Greeks began to develop a navy, a process furthered by Napoleon's boycott and the English blockade, which permitted only the Ottoman flag in the Mediterranean.

Yet, on the whole, the products of the Balkan region were poor. Exports consisted of grain, fruits, timber, stone, and various minerals, but at times of coarse clothing. Imports consisted of fine manufactures for the upper classes—wealthy nobles and clergy. Internal trade was handicapped by poor roads, brigandage, debasement of the coinage, and Turkish atrocities.

Fairs and Domestic Trade.—Of all the fairs of the seventeenth and eighteenth centuries the most important were Leipsic and Stourbridge. The Leipsic Fair established in 1507 was held three times a year. To it, because of the convergence of the chief roads of central Europe, came Hungarian, Polish, and Russian merchants to meet Dutch, English, Greek, and Italian traders. Other fairs of note were Bristol, England; Bordeaux, Lyons, and Rouen, France; Frankfort-on-the-Main, Frankfort-on-the-Oder, and Bozen, Germany; Antwerp, Belgium; Geneva, Switzerland; and Novia and Senigaglia, Italy. Concerning the last-mentioned fair held the last eight days of July Grosley wrote:

... This sight put one in mind of a fire, with the multitudes got together, some quenching the flames, and others clearing the houses. The streets are all shaded by tents hung across, and wetted from time to time; and, for the conveniency of carriage, the ground is boarded. Places, houses, the whole city is a warehouse; the harbour, the quays, the streets are one continued shop, and, in the midst of them, a thousand little ambulatory shops moving backwards and forwards...

The basis of this fair is formed by the islands and all the coasts of the Adriatic, Sicily, and a part of the Archipelago. The Albanians and Archipelago Greeks bring light jackets, waistcoats, shirts, caps, babrouches or

large puppets, wax, honey, etc. An Albanian vessel had a lading of tar in goatskins, the greater part of which, whether ill made or rotten, burst in bringing them from the harbour to the road; so that this part of the fair was all over tar, and crowded with people scrambling for it.³

In addition to the important fairs large numbers of local fairs were held, especially in backward countries. Peddlers in the eighteenth century, nevertheless, began to encroach upon the business of the fairs and toward the close of that century travelling salesmen equipped with samples began to tour European countries. Improved transportation facilities and the maintenance of good order encouraged such merchants.

Both factors operated to encourage trade in Switzerland. Foreign travellers comment upon the safety of travel. One of them, Coryat, in 1608, declared that travel was safer than it was in any other European country, and toward the close of the sixteenth century, Fynes Moryson, another English traveller, wrote:

And howsoever all the country lies within mountains and woods, yet the highway for passengers is no where more safe from thieves, so as it is there proverbially said, that you may carry gold in the palmes of your hands: For all crimes are severely punished without respect of persons... Also because military men, and such as drinke to excesse, are prone to brawling and blowes, most heavy penalties are thereby inflicted upon such as are Authours of injuries, and the leagues make not more frequent mention of any other thing, than of reproaches, for which they prescribe such good remedies and real satisfactions, not passing over the least injury of the poorest man, as among the very souldiers, yea, halfe drunken, there very seldome hapeneth any murther.⁴

At the close of the eighteenth century Berne had about half of the territory and half of the population of Switzerland. Although the nobles were, in general, proud and hated to mingle with the mercantile classes, neither the tradesmen nor the peasants suffered in the opinion of John Moore and their favorable condition naturally promoted trade.⁵

During the eighteenth century roads in England, and elsewhere also, improved and canal construction, particularly in England, became noteworthy, especially after the Bridge-

³ *The Annual Register*, 1769 (London, 1779) Vol. XII, B, p. 168.

⁴ Quoted in Oechsli, Wilhelm (Paul Translation). *History of Switzerland* (The University Press, Cambridge, 1922) pp. 205, 206.

⁵ See *A View of Society and Manners in France, Switzerland and Germany*, Vol. I, p. 290.

water Canal, about seven miles in length, gave Manchester coal from the mines at one-fourth the former expense.⁶

Internal trade in many countries was handicapped by restrictions, tolls, and monopolies. At Rouen, France, for example, one company had the exclusive privilege of supplying grain, another of transporting wheat, and a third of grinding it. Yet, despite handicaps, various towns carried on a local trade, now rising, now dwindling. Some of the chief characteristics of the town trade may be illustrated by reference to Paris and Naples.

The celebrated German dramatist, Kotzebue, in various letters described street scenes in Paris. Now he pictures a slight-of-hand performer, now an ugly girl attempting to sell fifty toothpicks for two sous, now an old woman reading from a handbill which she wants to sell for a sou, now a "pretty round-faced wench" who sells cleaning powder, now a sailor with a microscope selling a look at a flea for a sou, now a "bald-pated fellow" with a pasteboard telescope, and so on almost indefinitely. In Letter IV he describes a market scene in the *marche des Innocens*:

...There in numerous rows, monstrous fat women, called Polssardes, or fish women, are seated under large umbrellas, between eight and ten feet in diameter, forming, if viewed from above, a roof resembling that of the ancient Roman soldiers, when advancing with their shields thrown over their heads, in a manoeuvre, called the *testudo*. These umbrellas are not the property of those women, but hired in the market for a few sous. Thus screened from the rain and the sun, you may here admire mountains of butter, shoals of fish, stores of eggs, towers of apples and pears, gardens of flowers, and great quantities of grapes and other sorts of fruits, together with a party-coloured mixture of vegetables, among which, the large dazling, white, and neatly raised heaps of cauliflowers, afford a spectacle particularly pleasing...⁷

Goethe describes the street trade of Naples, now its shadows, now its sunshine,—little girls and boys, five or six years of age, trying to help older sisters and brothers in selling fish, twigs, wood, sulphur, water, candy, fruit, and the like. He comments:

It is really a pretty sight to watch one of these bantlings, whose whole shop and utensils consist of a board and a knife, carrying about a water-

⁶ See *The Annual Register*, 1763 (London, 1764) Vol. VI, B, pp. 99, 100.

⁷ *The Annual Register*, 1804 (London, 1806) Vol. 46, p. 771.

melon, or a half roasted pumpkin, gathering quite a troop of other children about him, setting down his board, and slicing his fruit into small pieces. The buyers and sellers higgie-haggle with equal earnestness; the former intent on getting the best return for their small copper-pieces, the latter on achieving as great a profit as possible...⁸

Goethe also paints in vivid language a busy scene, a rosy scene in which child labor is in the background:

It looks as if Toledo were a theatre for the representation of superfluity. The shops are all dressed out in eatables, hanging over the streets themselves, the sausages in part gilded and bound with red ribbons; the turkey cocks which have all a red flag waving behind them, and of which yesterday there were sold thirty thousand; to which are to be added those fatted at home. The number of asses loaded with oranges, and the heaps of golden fruits piled up in the streets are enough to put a man out of his senses. The prettiest sight, however, is perhaps offered by the shops where green provisions are sold, where raisins, figs and melons are exposed; all arranged so prettily as to gladden eye and heart. Naples is a place where God rains blessings in super abundance for every sense.⁹

SELECTED REFERENCES

Day, Clive. *A History of Commerce* (New York, Longmans, Green and Company, 1924) Chapters XIX-XXVII.

Gibbins, H. de B. *Industry in England* (New York, Charles Scribner's Sons, 1912) Chapters XV and XVIII.

Knight, M. M., Barnes, H. E. and Flugel, Felix. *Economic History of Europe in Modern Times* (Boston, Houghton Mifflin Company, 1928) Chapters I and II.

List, Friedrich (S. S. Lloyd Translation). *The National System of Political Economy* (London, Longmans, Green and Company, 1928) Book I, Chapters III-VII.

Mavor, James. *An Economic History of Russia* (London, J. M. Dent and Sons, 1925) Vol. I, Book I, Chapter V.

Palm, F. C. *The Economic Policies of Richelieu* (Urbana, University of Illinois Studies in the Social Sciences, 1920) Vol. IX, No. 4, Chapters VI-IX.

See, H. E. (E. H. Zeydel Translation). *Economic and Social Conditions in France during the Eighteenth Century* (New York, Alfred A. Knopf, 1927) Chapter VII.

Weber, W. C. *General History of Commerce* (Boston, Ginn and Company, 1903) Chapters XIV-XX.

⁸ Morrison, A. J. W. and Nisbet, Charles. *Goethe's Travels in Italy*, pp. 333, 334.

⁹ *Ibid.*, p. 373.

PART IV
EUROPE SINCE 1800

CHAPTER XIX

SOCIAL CONDITIONS

Conditions in Eastern Europe.—At the beginning of the nineteenth century bad conditions usually prevailed in eastern Europe. The people there were long unprogressive and backward. Much of the Balkan region seems to have inherited some Turkish characteristics. At the beginning of the nineteenth century a traveller named Thornton thus described those characteristics:

The national character of the Turks is a composition of contradictory qualities. We find them brave and pusillanimous, gentle and ferocious; resolute and inconsistent; active and indolent; passing from devotion to obscenity, from the rigour of morality to the grossness of sense; at once delicate and coarse; fastidiously abstemious and indiscriminately indulgent. The great are alternately haughty and humble; arrogant and cringing; liberal and sordid; and in general it must be confessed, that the qualities, which least deserve our approbation, are the most predominant. On comparing their limited acquirements with the learning of the Christian nations of Europe, we are surprised at their ignorance; but we must allow that they have just and clear ideas of whatever falls within the contracted sphere of their observation.¹

Before the winning of independence the Greeks seemed to be a slow-moving, self-indulgent people. Of them Thornton wrote:

The Greeks adopt a more than Asiatic luxury: they sleep after dinner on their sofas, whilst a female servant fans away the flies and refreshes the air which they breathe; they exact from their attendants the respect and homage which they have seen paid to the Turkish grandees, but feeling within themselves no consciousness of personal worth or importance, they cannot command with Turkish dignity, and the petulance of vanity betrays itself in harsh expression, and insulting behaviour to their inferiors.²

¹ *The Annual Register*, 1808 (London, 1810) Vol 50, C, p. 44.

² *Ibid.*, 1808 (London, 1810) Vol. 50, C, p. 57.

Such an attitude naturally hindered development. Only gradually, for example, is the old wooden plow of Hesiod's day being replaced by modern implements. Beverly Nichols in "From An Attic Window" refers to Greece as "the land of the wrong way round."³

Two views of Albania prevail at the present time. G. P. Scriven in an article, "The Future of Albania," referred to "the grandeur of its mountains, the beauty of its lakes and streams, and the charm of its old-world towns," and "the wealth of minerals," and "the fertility of its valleys and the riches and beauty of its coasts."⁴ Anna M. Sholl in "So This Is Albania?" refers to "mud-floored dungeon like rooms," fly, beetle, and scorpion-infested floors, to dirty dishes, and to dirty cooks.⁵ T. R. Ybarra in "Mussolini's Balkan Outpost" declared that literally speaking the greatest product was sheep, but that speaking figuratively the greatest product was dynamite. This harsh critic continued: "They consider assassination a matter about which altogether too much fuss is made in Occidental Europe."⁶

George Higgins Moses comments on the disinclination of the Montenegrin men to work. Martinovitch, minister of war, was asked by Moses how many men he could put into the field. When he replied, "Fifty thousand," Moses expressed surprise, saying that fifty thousand would be one-fifth of all the people in the kingdom, more than could be spared from productive pursuits. "Productive pursuits, indeed," snorted Martinovitch, "don't you know that the women do all the work up here anyway?"⁷

Similar conditions prevail in other European countries. Concerning the universality of female labor in Latvia, a little republic broken off from Russia, M. O. Williams writes:

At Ventspils I found women driving the wagons, harvesting the flax, piling the grain, tending the cattle, sweeping the streets, pulling the hand carts, running the hotel where I lunched, waiting on table, tending to the street markets, keeping the country stores, shoveling the saw dust, and piling the lumber trimmings at the mill.⁸

³ See the *Outlook*, March 15, 1922, Vol 130, p 429

⁴ *The North American Review*, March, 1920, Vol 211, p 337

⁵ See the *Catholic World*, July, 1928, Vol 127, pp 414-421.

⁶ See the *Outlook*, June 24, 1931, Vol 158, p 243

⁷ See the *National Geographic Magazine*, March, 1913, Vol XXIV, p 287.

⁸ *Ibid.*, October, 1924, Vol 46, p 441

The hand of the Soviet authorities has fallen with terrible weight upon the peasants. David Roden Buxton in "A Journey in Northern Russia" refers to peasant hardships, high prices of food, the virtual absence of butter even near dairy farms, the scarcity of private markets, difficulties in securing transportation and lodgings, the destruction of churches, and especially the misfortunes of the kulaks. Of his host living with his wife and child in the upper room of an isolated building and of the kulaks in a little village on the upper Dvina, he said:

...Of bread they certainly had enough; meat they had also in the shape of cow's guts, and they had bought privately a sack of potatoes. But of sugar or tea there was none, and the case of this menage was unique among those I have seen, for they had ceased even to heat the *samovar*—a melancholy state of affairs for a Russian family.

In the lower part of the same building there lived in great squalor and disorder, half a dozen exiled *kulaks*, old bearded peasants... They made a small living by the manufacture, out of old pieces of rope, of rough slippers, which they sold to the local peasants. These were the first of many *kulaks* whom I saw at different points in the northern regions. In one place one scarcely met an old peasant who was not an exile, dragging out a rather miserable existence far away from his own people. They were sent away for various periods of years, and were making a precarious living, either by some small manufacture or by collecting fruits and fungi in the forests for sale on the open market...⁹

Conditions in Scandinavia.—Samuel Laing, a traveller in Scandinavia, found marked contrasts in Sweden about 1835. In the Stockholm territory he found the lower classes in poverty, with the restrictions on internal trade virtually starving the peasants for lack of markets and delivering the trade to Finland. Many of the Dalecarlian peasants wore the costumes of the days of Gustavus Vasa, multiplied without forethought, subdivided their lands, and deteriorated like the Irish. In striking contrast were the conditions in Angermannland which bordered on Lapland. Of this favored region Laing wrote:

The people of these two countries, North and South Angermannland seem to unite, on a small scale, all the advantages of a manufacturing and agricultural population more fully than any district I ever saw. The land is all in small estates, in the possession of the peasantry. The men do the farm business; the women are driving a not less profitable branch of in-

dustry. There is full employment at the loom or in spinning for old and young of the female sex. Servants are no burden. About the houses, and inside, there is all the cleanliness and neatness of a thriving manufacturing, and the abundance of an agricultural population. The table linen laid down even for your glass of milk and a piece of bread, is always clean; the beds and sheets are always nice and white. Everybody is well clad; for their manufacturing is like their farming, for their own use in the first place, and the surplus only, as a secondary object, for sale; and from the number of little nick-nacks in their houses, such as good tables and chairs, fine bedding, papered rooms, and a few books, it is evident that they lay out their earnings on their comforts...¹⁰

Mr. A. de Capell Brooke toured Scandinavia in 1820 and wrote in an entertaining way. "In every direction," he said, "the small farms of the peasants catch the eye, showing a degree of comfort rarely to be met with in other countries." The peasants combined with farming the necessary hand trades, each peasant being able to make his own clothes and shoes, to erect his own house, to do his own joining, and often to provide or to repair his own clock or watch. Some peasants did remarkable work in silver, brass, and metals. Families at times were quite large. Mr. Brooke while at Breiden lodged with a farmer who had seventeen children and a few servants or attendants. Early one morning he opened the door of the kitchen of the preceding evening. His comment is interesting:

On opening the door a scene both curious and strange to my eyes presented itself. In five or six large beds, or rather wooden cribs, near twenty persons of both sexes, perfectly naked, were lying together in heaps; and the dark copper-coloured skins of some, contrasting with the whiteness of others, rendered the group still more extraordinary. To complete it, on the ground several large pigs were enjoying the sweets of repose, and responding with drowsy grunts to the snores of, I might almost say, their fellow swine...¹¹

Of course, except in particularly backward regions, found in all parts of the world, for that matter, such conditions are obsolete. Sweden, Norway, and Denmark are now among the most highly civilized countries in the world. Illiteracy is almost unknown, the schools are excellent, and science has utilized the meager resources intensively.

Conditions in Middle Europe.¹²—The dense population of

¹⁰ *A Tour in Sweden in 1821* (London, 1829) p. 182.

¹¹ See *Travels through Sweden, Norway and Finmark to the North Cape in the Summer of 1820* (London, 1823) pp. 119, 120.

¹² See Chapter XXII for a discussion of English conditions after the Industrial Revolution.

Holland and Belgium long has forced the careful utilization of resources in an effort to keep social standards as high as possible. Concerning that point Sir John Carr wrote near the beginning of the nineteenth century:

In Holland, that bee-hive of industry, every available source of service is made use of, so that dogs, and even goats, are not suffered to pick the bone, or eat the bread of idleness. Most of the little wares and merchandizes, and particularly fish, are drawn by the former who are properly harnessed for the occasion to little carts, whilst the latter are yoked to infantine wagons and curricles, to air and exercise little children in... On their farms, cows and oxen are always used in draft, and display every appearance of receiving the kindest treatment from their masters.¹³

About three-quarters of a century later a traveller thus commented on the hard life of the Belgian peasants:

Unhappily, the farm-labourer there, as elsewhere, does not enjoy much comfort; working harder than most men, he is the worst fed. Rye-bread, potatoes, beans, butter milk, without meat or bacon, is the usual fare, chicory the constant drink; beer is reserved for Sundays and fair days. His wages vary from tenpence to a shilling and he could never live upon it did not all the members of his family work without ceasing. When the day's work is ended, often by moonlight, the father cultivates his small field; his wife and daughters take up the poorly paid lace-work, instead of the old spinning-wheel which steam has superseded; and his sons, when their field-work is done, bring up rabbits for the London market...¹⁴

Conditions in France and Germany were somewhat more favorable, but even in those countries suffering occurred as will be noted in later chapters. Of the harsh conditions of life in Switzerland B. F. Leggett, a traveller, declared in part:

In retracing our steps through the upper part of the Visp valley we often wondered how the people managed to subsist. There is so little arable land that it seems impossible to live on the products of the soil. The secret, doubtless, lies in the fact that their wants are few and simple, and that everything is utilized. In the tourist season many find employment as guides and porters. The long, dreary winters are favorable for wood and ivory carving and other mechanical work which finds a ready market in the summer. The mountain pastures support large herds of cows and goats from which great quantities of butter and cheese are made.

...We saw women thus carrying hay from the meadows to the barn, and even climbing a ladder with their burden, and depositing it in the loft.

The picturesque character of the rural Swiss cottage has been celebrated in romance and song. Many of them are neat and tasteful, but too often they fall far short of our ideal. Under the broad projecting eaves, onions,

¹³ *A Tour through Holland along the Right and Left Banks of the Rhine, to the South of Germany, in the Summer and Autumn of 1806* (Phillips, London, 1807) p. 111.

¹⁴ *The Living Age*, May 16, 1874, Vol. 121, p. 505.

herbs and corn are hung for shelter. Little bunches of gleanings from the grain patches, and fruit ripening in the windows, lend an air of thrift and economy.

Sometimes the front of the cottage bears in large letters, the owner's or builder's name, followed by a sentiment, a benediction, or a prayer. The ground floor, however, is generally a stable, where in winter the cows, sheep and goats live in delightful proximity to the family overhead.¹⁵

The peasants in both Austria and Hungary seemed to enjoy a crude abundance. Frances Trollope said:

Of the poorer classes...the highest speak with the greatest interest, and appear to feel both pride and pleasure in knowing well their condition, their amusements, their peculiar merits, and all the distinctive traits of national character which distinguish them. Neither in England nor in France, and much less in America, have I ever heard or seen so much affectionate interest expressed for the comforts and enjoyments of the lower orders as I have witnessed here.¹⁶

Manners, nevertheless, remained boorish, especially in Hungary. How they could be otherwise is difficult of discernment when we read John Paget's description of a Hungarian country dinner party:

As is the custom, the invitation was verbal, and the hour two o'clock. The drawing-room into which we were ushered was a spacious uncarpeted room with a well-polished floor on which, I am sorry to say, I observed more than one of the guests unceremoniously expectorate...I was a good deal surprised to see the exquisites of Presburg drawing well-proportioned hair-brushes from their pockets, and performing those operations usually confined in England to the dressing-room, in the presence of a party of ladies, and within the sacred precincts of the drawing-room. But these were trifles compared to the solecisms committed at the dinner table. One of the guests occupied a little spare time between the courses in scraping his nails with a table-knife, talking at the same time to the lady next him, whilst his vis-a-vis was deliberately picking his teeth with a silver fork!

The dinner was most profuse; and as is usual here, the dishes were carried round to every one in turn, the table being covered with the desert. I can neither tell the number nor quality of all the courses, for it was quite impossible to eat the half of them; and many even of those I did taste were new to me. Hungarian cookery is generally savoury, but too greasy to be good...

We had abundance of champagne and Bordeaux, and, as a rarity, some Hungarian wines. I say as a rarity, because in many houses not a glass of anything but foreign wine can be obtained. Unfortunately, Hungarian wines are not only good but cheap, and that is enough to prove they cannot be fashionable. After dinner we adjourned to coffee, when pipes were in-

¹⁵ *A Tramp Through Switzerland* (John B Alden, New York, 1887) pp 48-50.

¹⁶ *Vienna and the Austrians with Some Account of a Journey through Swabia, Bavaria, the Tyrol, and the Salzbourg* (London, 1838) Vol II, p. 214

troduced, without a word of remonstrance from the ladies, as if they were the common conclusion of a dinner party: at five o'clock we all left...¹⁷

Here and there in the rural mountain territory of Czechoslovakia conditions are still bad. Although M. O. Williams declared that they were changing fast, the women adopting the latest styles and industry developing, he pictured primitive conditions for the rural parts:

But we did get to conditions so primitive that six human beings and four cattle, not to count pigs and poultry, lived in a single room house, and we did experience the feeling which only carbolic soap can quite relieve.¹⁸

Gunther Stein in "A Rutheman Week-end" describes a trip by air-craft, the construction of roads and canals, of schools and dwellinghouses, and then adds:

I passed through Ruthenian villages that can hardly have changed at all in three hundred years. Wretched huts with thatched roofs sheltered both men and beasts. Lovely, slender women with white sheepskins over their shoulders and huge brightly colored coats carry heavy sacks, walking bare-foot along the muddy streets with easy, balanced footsteps. Strong Slavic men likewise wearing sheepskins over their shoulders are transporting wagon loads of wood, corn, and melons gathered in at the last harvest. Children with white sheepskins over their shoulders are herding cows, horses, pigs, and geese. Between fields of corn that rise higher than the low houses, grow innumerable sunflowers, which give a kind of oil, also pumpkins for the horses to eat and melons and beans...Poverty prevails everywhere. Economy still has some meaning in this primitive mountain country, above whose lovely valleys rise impenetrable forests, tinged, as I write, with bright autumn colors. Far beyond on the mountains lies snow even before the harvest has been garnered.¹⁹

Conditions in Southern Europe.—In Italy, Spain and Portugal conditions are still bad in the mountain regions, school facilities being limited and living conditions backward, due often to poverty but also at times to inertia.

Mrs. Anna Jameson in a book first published in 1826 spoke highly of Italy but sorrowfully of her workers:

The whole country from Milan to Padua was like a vast garden, nothing could exceed its fertility and beauty. It was the latter end of the vintage; and we frequently met huge tub-like wagons loaded with purple grapes, reeling home from the vineyards, and driven by men whose legs were

¹⁷ *Hungary and Transylvania, with Remarks on their Condition, Social, Political, and Economical* (London, 1839) Vol. I, pp. 12-14.

¹⁸ See the *National Geographic Magazine*, February, 1921, Vol. XXXIX, p. 145.

¹⁹ *The Living Age*, January, 1932, Vol. 341, pp. 415-419.

stained with treading in the wine-press... Sometimes we saw in the vineyards by the roadside, groups of laborers seated among the branches of the trees, and plucking grapes from the vines, which were trailed gracefully from tree to tree and from branch to branch, and dropped their luxurious burden of fruit. The scene would have been as perfectly delightful, as it was new and beautiful, but for the squalid looks of the peasantry; more especially of the women. The principal productions of the country seem to be wine and silk. There were vast groves of mulberry trees between Verona and Padua; and we visited some of the silk-mills, in which the united strength of the men invariably performed these operations which in England are accomplished by steam or water. I saw in a huge horizontal wheel, about a dozen of these poor creatures laboring so hard that my very heart ached to see them, and I begged that the machine might be stopped that I might speak to them:—but when it was stopped, and I beheld their half savage, half stupefied, I had almost said *brutified* countenances, I could not utter a single word— but gave them something, and turned away.²⁰

Edward Lear disliked the inn accommodations in the backward parts of Italy. He commented:

An old woman, Donna Llonora, (who, like many I had observed in the course of the day, was a *goltreuse*.) cooked me some beans and a roast fowl; but the habitation was so dirty and wretched that one had need to have had a long journey to provoke any appetite. While I was sitting near the chimney, (it had the additional charm of being a very smoky one.) I was startled by the entrance of several large pigs, who passed, very much at their ease, through the kitchen, if so it were called, and walked into the apartment beyond destined for my sleeping-room... "Do you know that the pigs have got in?" said I to the amiable Llonora. "They are going to bed," quoth she nowise moved at the intelligence. They shan't sleep there while I am in the house, thought I; so I routed them out with small ceremony, and thereby gave great cause for amazement to the whole of the family...²¹

A traveller in Spain wrote:

At Guadalajara, formerly a very flourishing town, we stopped at a *posada* to get a starveling dinner. In the time of the good Charles this place was noted for the fabric of cloths. The spacious edifice in which they were made assembled daily within its walls ten thousand artisans. The looms are now silent, the town is hurrying to decay, and the Royal Fabric of Guadalajara, as I was told by the innkeeper now gives employment to four persons, whose duty it is to keep the doors and windows closed, and shut out the wind and weather. This is a forcible, but not a solitary instance of the national decline. Does not the traveller see it everywhere staring him in the face? In the filth of the inn, where he sits down on a three-legged stool to eat a dirty meal from a dirtier dish, and lies down to sleep in a cheerless chamber amid swarms of bugs and fleas? Does he not see it written in melancholy characters on the ruinous mud-hovels of the pueblos that here and there break the solitude of his journey? in the deserted plains that stretch for miles, with scarce a solitary symptom of

²⁰ *The Diary of An Ennuyee* (Houghton Mifflin and Company, Boston, 1887) pp 78, 79.

²¹ *Illustrated Excursions in Italy* (London, 1847) Vol I, p. 106.

habitation and culture; and in the squalid attire, and the sad countenances of an oppressed peasantry?²²

Even at the beginning of the twentieth century T. R. Dawley in "Stranded in a Spanish Hill Town" pictured primitive conditions at meal time:

The old woman set a table for me in the adjoining room, with a plate, a spoon, a covered dish containing two fried eggs, a bottle of wine, and half a loaf of bread. As I noticed that every one carried huge clasped knives called *facas*, I understood that I was supposed to furnish my own knife, and that forks were as yet unknown in that part of Spain. The wine-bottle was a wide, transparent-glass, tea-pot-like arrangement, with a narrow spout from which etiquette requires one to drink the wine without touching the spout to his lips. One must hold the bottle over his head and pour the wine down his throat. I tried it. My first attempt sent a jet of wine into my eye, and the second sent it down my neck and on to my shirt-bosom. I finally managed to hit my mouth, but I hit almost everything else around it as well and then I came to the conclusion that the wine was not any good anyway, for it was sour. But the bread and eggs were excellent.²³

Robert Semple thus describes one of the best examples of a Portuguese inn:

...A single room or hall occupied all the lower part, unfloored, and serving as a retreat both to the family and their poultry, which were perched all round. At one end a seat was built along the wall, and, corresponding to it, a low table like that which hermits are represented as using, but formed of bricks and mortar instead of turf. On the opposite side of this immovable table, great pieces of cork supplied the place of stools, which, when we tried to lift them, surprised us by their lightness. On a large open fire place stood two or three small narrow-necked earthen jars, which formed the whole kitchen apparatus, and this completes the furniture of the lower room. The space above was divided into several apartments, furnished with mats, and one or two mattresses for strangers to sleep on; and one room locked up contained the wealth of the family. Having signified our wish to eat, two fowls were instantly killed, stripped, cut into pieces, and put into one of the narrow-necked jars with a little water and other ingredients. The jar was then placed on the hearth, and hot embers swept round the bottom of it; and this was the whole process of cooking. Meantime we lay down to sleep, and, when called to our meal, found the riches of the house displayed. Our table was spread with a clean napkin, two earthen plates, one silver and some wooden spoons, and a pitcher of tolerable wine...²⁴

Arnold Bennett in "Some Impressions of Portugal" declared in 1927:

²² *Scenes in Spain* (George Dearborn, New York, 1837) pp. 212, 213.

²³ *The Century Magazine*, June, 1903, Vol. 66, p. 236.

²⁴ *Observations on a Journey through Spain and Italy to Naples; thence to Smyrna and Constantinople* (Baldwin, London, 1807) pp. 28-30.

Lisbon is as different from Oporto as New York from, say, New Orleans. Not less picturesque, but differently picturesque. One meets few oxen in Lisbon, and the Lisbon oxen have plain yokes and horns less like the antlers of a stag. On the other hand, there is a full and even generous supply of automobiles, and the picturesqueness of these is vocal; it consists in the noise they make and the wind of their rushing. A story runs that a Portuguese profiteer bought a Rolls Royce, and the next day complained that it was not satisfactory. The vendor anxiously interviewed the chauffeur, who said that the car functioned to perfection. But the owner protested: "Nothing of the kind. It's absolutely noiseless. You can't hear it move." The vendor soon remedied that defect and made the owner quite happy...²⁵

Another writer describes the low pay, the indifferent attitude, and the simple amusements—fiestas—, a mixture of religious observances and music, bowling, dancing, cutting off the head of a cock eight feet up in the air with a dull sword, and husking bees. Of the last he says:

When the corn-cobs have been gathered into the barn, the farmer chooses an evening and invites all his friends to a kind of "Bee." He provides wine and inexpensive refreshments. . . The corn is piled on the threshing floor, and a circle is formed round it. Many willing hands soon begin to show results, and the great heap is gradually reduced. One of the unwritten laws is that any one finding a red cob may kiss all the girls present; and of course the expedient of bringing the necessary "mistletoe bough" is often resorted to by the festive spirits of the party. There is sure to be at least one guitar, which is in constant requisition, and as surely will be found one or more persons of either sex ready to sing, or, more accurately, to yell at the top of their voices.²⁶

Roda Roda in "A Portuguese Diary," though paying compliments to the Portuguese, yet insisted that in some sections of the country the people were backward and that the peasants were opposed to improvements and were indolent. The following sentences show the lazy backwardness, a serious bar to progress: "During the fig harvests cloths are spread under the fig trees and people simply wait until the figs fall of their own accord. Then the cloth is removed with the figs."²⁷

Religious Conditions.—In many countries of the European world the state church has been disestablished. Taxation for the favored church has not entirely ceased, but freedom of belief is almost universally guaranteed and freedom of wor-

²⁵ *The Living Age*, April 15, 1927, Vol. 332, pp. 701-706

²⁶ *Blackwood's Edinburgh Magazine*, March, 1891, Vol. 149, p. 355

²⁷ See *the Living Age*, April 15, 1927, Vol. 332, p. 704

ship is often accepted. Yet in recent years restrictions in Russia and Germany point to a revival of religious persecutions, Germany as late as 1933-1936 being guilty of cruelty toward Jews. Opposition to the church is most marked in the countries where political and economic radicalism are strongest, notably, Russia.

The Fascisti movement in Italy led the Vatican government to resume the friendly relations broken off when Rome was made the capital of Italy at the time of the unification of the state. The work of the Methodists, however, has been handicapped by opposition of the Catholics. Portugal separated church and state in 1910, five years after France had taken similar action. Spain followed those examples in 1931. The patriarch of the Greek Orthodox Church was ordered by the Turkish Republic to leave Constantinople, but when he agreed to refrain from politics the order was rescinded. Czechoslovakia has witnessed a union of Protestant bodies, the Reformed and Lutheran churches forming the Evangelical Church of Czech Brethren in 1918. It was officially recognized four years later. The anti-papal National Church has grown rapidly since 1920 and has leaned toward the Protestant Episcopal Church.

The World War deepened the English longing for Christian union. The Anglican bishops threw open the door to the Nonconformists, declaring that the Bible should be basal, that the Nicene creed should be a satisfactory statement of belief, that Nonconformist clergy could be re-ordained in the Episcopal Church, and that the unity of the various Christian churches would be recognized. Although the other churches received the message courteously little advance has been made, ordination and the use of creeds being the chief obstacles. The thoughtful in all countries, however, are realizing the need of common action to save civilization from the greed of materialism and the suicide of war.

In some countries the strife between orthodox and modernistic views has developed rather bitterly. Theological teachers, with few exceptions, have adopted scientific historical and critical methods, thus furthering the attempt to reformulate the belief of the church for the new type of mind. The leader

in this effort in England since 1914 has been the Churchmen's Union. Although the World War diverted attention from the movement, meetings in various years have refused to condemn the Modernists, but have urged them to exercise caution in denying credal statements.

For centuries the priestly element, or appeals to the fear of punishment, prevailed in most of the countries of the world. More recently, nevertheless, in most countries the prophetic or service type of religion has grown in favor. Missionary work among heathen peoples and community reform are emphasized. Various popes have made important pronouncements relative to social service and the relations between labor and capital. Protestant leaders have done likewise. Young people in all religious bodies are emphasizing effectively social service work. They want better homes, better communities, and practical brotherhood service. They want to stop the sacrifice of the young in murderous wars for the exaltation of nationalism and the satisfaction of the cupidity and ambition of grasping business and political robbers.

Educational Conditions.—The democratization of education perhaps started with the French Revolution, but the early efforts to secure compulsory education failed. Not until 1882 did Jules Ferry of France secure a law requiring compulsory attendance for children from six to thirteen and then enforcement was ineffective. In 1794 Prussia set an example, widely followed by other German states, emphasizing the right of the state to enforce education. Compulsory attendance regulations in Weimar even go back to 1619 and in Saxe-Gotha to 1642. Attendance in Germany shortly prior to the World War averaged about ninety-five per cent for children from five to fourteen. The German Constitution of 1919 demanded compulsory attendance up to eighteen, full-time attendance to fourteen, and insisted that the children spend their first four years in the public *Grundschule*.

England did not demand compulsory attendance until 1876. It then required parents to provide an efficient education for the children, stopped child labor under ten, and set certain scholastic requirements for children between ten and fourteen. All elementary schools approved by an inspector were receiv-

ing support from the rates. Legislation in 1891 extended support to the voluntary schools, largely church schools, both types of schools being given ten shillings per pupil from the rates. Since that time the national culture has been raised in a marked way.²⁸ In 1900 legislation allowed local authorities to require all children up to fourteen to attend full time, but in 1914 there were yet seventy thousand children in part-time work. In 1918 the half-time system was abolished; children were required to attend full time till fourteen and local authorities were empowered to advance the age limit to fifteen and with the consent of the Board of Education to sixteen.

There is at the present time all over the world a tendency to require compulsory education at least to the age of fourteen, a movement greatly furthered by various international labor conventions and the Declaration of Geneva of the Fifth Assembly of the League of Nations in 1924. This so-called declaration of the rights of the child has even been written into post-war constitutions in several countries.

War and depression, however, injure educational conditions, for legislators virtually everywhere seem unable to realize that children must receive their education now whereas roads, navies, and armies can wait. In the early part of the World War the participating nations did well with their educational systems but soon the scarcity of food, scarcity of teachers, and the failure to enforce compulsory school attendance laws wrought great havoc with the educational work, and some of the systems scarcely recovered before the worldwide depression of 1929-1935 injured the schools of virtually all the countries.

Education is most backward in eastern and southern Europe. Yet even in Balkan countries progress has been made. Turkey in 1928 made the exercise of citizenship depend upon the acquisition of a literacy certificate by May 31, 1931. All of the Balkan peoples have schools and even universities. Russia is still mentally backward, but the state is providing schools to teach its present governmental principles. Italy,

²⁸ See Browning, Oscar. *A History of the Modern World, 1815-1910* (Funk and Wagnalls Company, New York, 1911) p. 836.

Spain, and Portugal have wrestled with problems of organization, the lessening of illiteracy, and the preparation for enlightened citizenship.

Belgium and Holland possessed average educational facilities at the beginning of the nineteenth century. In both countries, as elsewhere, the strife of Catholics and Protestants for control of the schools and religious education injured the children. In 1893, Belgium allowed every man one vote, every man over thirty-five and the father of a family or the owner of certain wealth two votes, and every man of high educational qualifications or the ex-holder of an important public office three votes. Although that measure, as the political provision in Turkey, decreased illiteracy, it was abolished in 1919. In Holland in the last half of the nineteenth century numerous schools in which religious instruction was barred were opened with state support. Conservatives and Catholics in 1889 forced support for their schools and in 1900 the government required compulsory attendance in one or the other of the two systems.

Czechoslovakia perhaps furnishes the best example in central Europe of revived interest in the schools. In western Europe, but especially in the Germanic countries, interest has revived in the "Einheitschule," or the uniform elementary school which fits for the higher and specialized schools. This idea, successfully carried out, will keep the promising child from being rejected by higher institutions because he entered the wrong type of school. In Germany and elsewhere special schools are being founded also for the particularly gifted children. Then, too, we have schools for defective children.

Germany and the Scandinavian countries are among the most literate nations in the world. In the Scandinavian countries utilitarian subjects have been emphasized and the teacher's responsibility for outside activities has been increased. Denmark has created a type of school appealing especially to the children of farmers and middle class people and designed to fit students for the practical duties of life. A Swedish law passed in 1918, but not fully effective until six

years later, extended the work of the Folk School so as to meet more fully the social and economic needs of the day.

Virtually all countries have ministers of education. The scope of such ministries may be exceptionally broad, covering supervision of the fine arts, theaters, moving pictures, scientific undertakings and the like as in Austria, Czechoslovakia, Denmark, France, Hungary, Irish Free State, Prussia, Sweden, and Turkey. Austria, Czechoslovakia, Hungary, Norway, and Sweden even add supervision over ecclesiastical matters. Ministers of education direct the administration and organization of education, draft and present the annual budgets, propose legislation, inspect the work, and draft plans for courses, examinations, and research work. Systems are either highly centralized or democratic, France being a good example of the former plan and England of the latter.

The growth of schools and the acquisition of reading opened to many people the secrets of the past and promoted freedom of thought. Artists, novelists, and poets, particularly in the early decades of the nineteenth century, ushered in the Romantic Movement, which, as in the Lake poets of England and the artists, revealed the love of nature and virtually everywhere manifested love for the national past. Scott's *Waverly Novels* and Macaulay's *History of England* are typical of this hero interest. Yet in France, Germany, Ireland, Italy, Poland, Rumania, Servia, and elsewhere the same interest in the past appeared. In time, however, artists, novelists, and poets left the romantic past for the realistic present. Dickens exposed the evils of board schools, city slums, tardy courts, and debtors' prisons. French writers at times portrayed the immoral elements of society. Other writers explained the sad conditions of peasant life, or, like Tolstoy, pictured the poor Russian peasants oppressed by the aristocratic officials of the czar.

Since 1800 science has made greater progress than in all preceding centuries. Scientific knowledge became a part of the daily life of the people in transportation, lighting, medicine, and household conveniences. The modern scientific writing of history began in 1830 with Leopold von Ranke and that attitude created modern research and journalism. Modern

astronomers built on the work of Copernicus, Galileo, and Newton. Larger and better telescopes promoted astronomical knowledge. Soon after 1850 the spectroscope made possible the analysis of the light of the sun and the stars. Helium, now used to inflate the gas bags of dirigibles, was discovered in 1868. The atomic theory of matter explained decomposition, the burning of fuel, and the action of acids. Yet more recently scientists have discovered that atoms microscopically small though they are yet contain electrons. Scientists in increasing numbers are feeling that forces and laws among elements, as well as among stars, point to the Creator whom the Christians designate as God. Sir Charles Lyell about 1830 began to expound the theory that the earth's crust had resulted in changes of perhaps a hundred million years. The biological and medical sciences likewise revealed marked progress, the great contributions being the microscope, the germ theory of disease, and the development of anaesthetics for surgery. As early as 1790 Edward Jenner had used vaccination for smallpox. Louis Pasteur between 1860 and 1880 established the germ theory of disease. T. G. Morton used ether as an anaesthetic in dentistry between 1844 and 1847. Joseph Lister applied to the antiseptic treatment of wounds the discoveries of Pasteur. More recently the application of the theory has checked yellow fever, and inoculations have saved people from the attacks of diphtheria and typhoid fever.

Meanwhile the theory of evolution was being developed. Buffon, 1707-1778, discovered signs of evolution from lower to higher forms of life. Lamarck held the same thesis. Herbert Spencer, in 1852, argued strongly that animals, the earth, and plants had slowly evolved by a natural process. Seven years later Charles Darwin in his *Origin of the Species* suggested a possible method of evolution, holding that men themselves evolved from lower forms of life by a gradual and long continued process which is now designated as organic evolution. Recent research has modified some of Darwin's theories, but they are generally held as working hypotheses, for they were given wide publicity by Thomas Huxley, Herbert Spencer, and Alfred Russell Wallace.

CHART No.3 - AREA OF EUROPEAN COUNTRIES

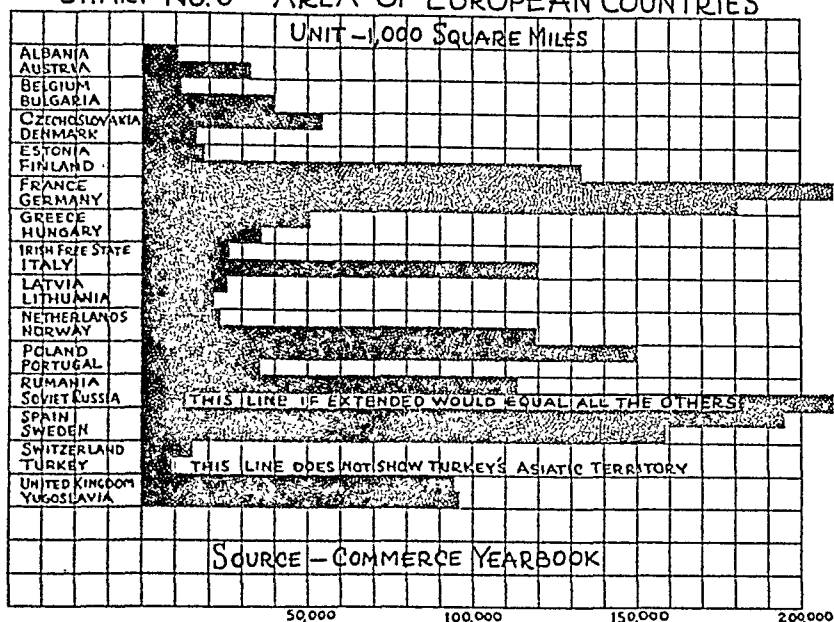
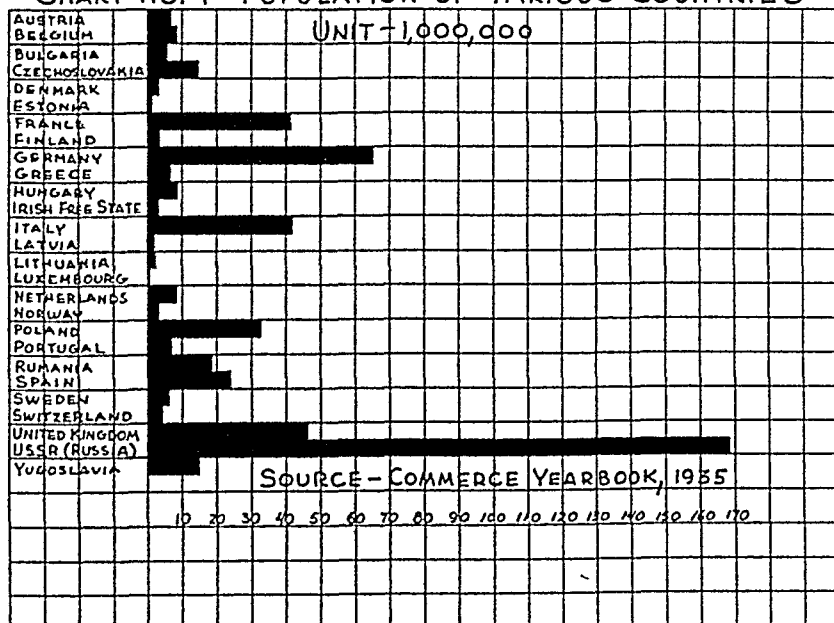
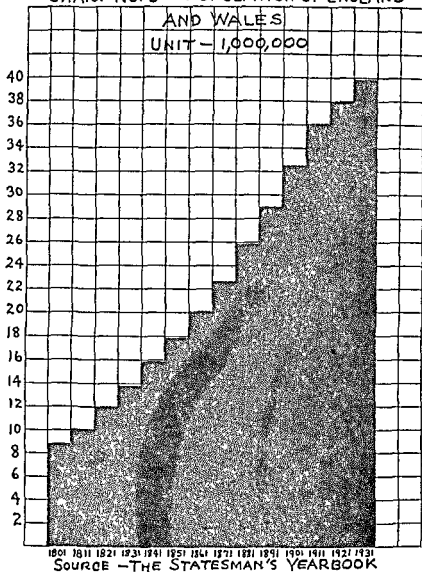


CHART No.4 - POPULATION OF VARIOUS COUNTRIES



Population Growth.—Although occasional efforts to obtain population statistics were made among the Hebrews, the Chinese, and the Egyptians and although Charlemagne in his *Breviary* and William I of England in his *Domesday Book* and Colbert by his system of birth and death registration made

CHART NO. 5 - POPULATION OF ENGLAND



somewhat similar attempts, modern census-taking did not begin until 1749, in Sweden. Finland, Austria, Norway, and Hungary all followed Sweden's example in the same century. In 1790 in the United States periodic census-taking began, soon to become common with the growth of democratic government.

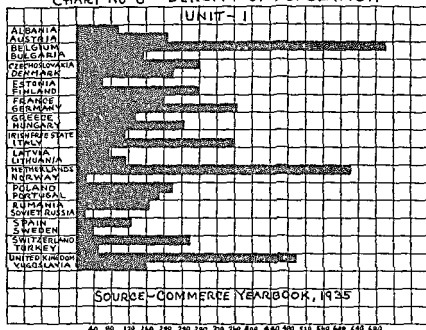
Europe as a whole perhaps had 175,000,000 people in 1800 and 452,000,000 in 1914. Its present population is little more than that of 1914 because of the ravages of the World War. One of the chief causes for the growth up to 1914 was the declining death rate due to increased medical and sanitary skill. The economic basis of living, moreover, has expanded greatly because of the commercial, industrial, and agricultural revolutions. The occupation of vast stretches of territory in foreign lands has meant the supply of enormous amounts of foodstuffs.

The largest European country in 1913 was Russia with about 141,000,000 people, or three and a half times the population of 1800. Germany was second with almost half as many, or about three times the population of 1800. Austria-Hungary in 1911 had about fifty million people, or double the number of 1800. The United Kingdom had about forty-five million people, or about three times the population of 1800. France had about twenty-seven million in 1800, but since 1870 has gained little, the population in 1911 being less than forty million. The only other European country to approximate that figure was Italy with thirty-six million, a marked growth since unification. The most densely peopled nations in 1914 were Belgium with 654 people to the square mile, England and Wales with nearly as many, Holland with 495, and Italy with 322.

Although one paragraph can not begin to hint at the effects of the World War, we must make some observations. Probably ten million died on the battle fields and as many more died at home from disease or famine. In fact, a 1935-estimate places the total deaths at twenty-six million. On an average twenty million men for four and a half years were taken out of their homes and industry. Deaths and absence from home thus caused a heavy decline in birth rates. In Germany, for

instance, the birth rate fell from 28.3 per thousand to 14.4. Because of the killing off of the best specimens physically the quality of the population is likely to deteriorate. One European scientist declared that to replace war casualties in the male population from twenty to forty-four years of age would require sixty-six years for France, thirty-eight for Italy, twelve for Germany, and ten for the United Kingdom. Russia, Germany, and France all suffered decreases in population.

CHART NO 6 - DENSITY OF POPULATION



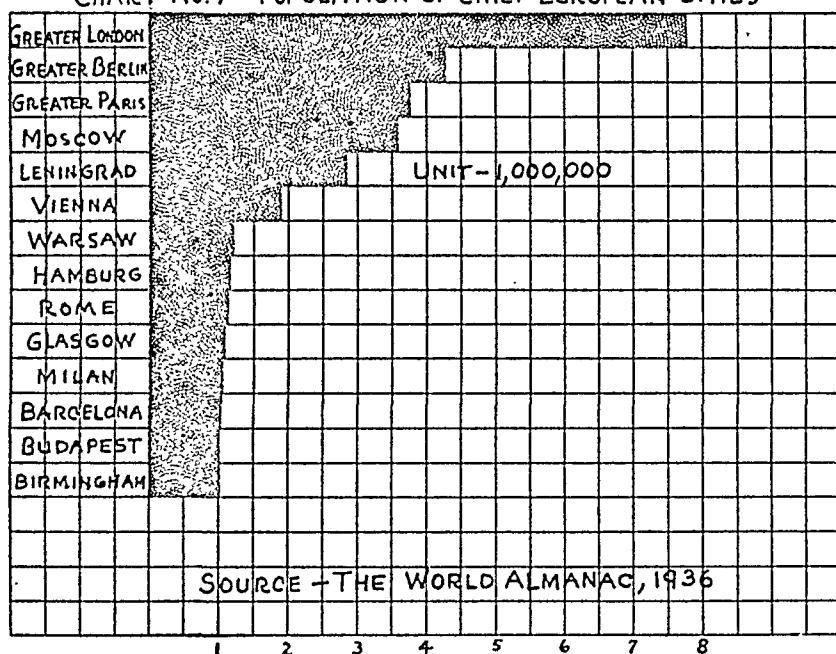
Other countries either lost or showed a retarded rate of growth. The resulting excess of females in the population, moreover, increases immorality.

The rank in population for the chief nations is: Russia, Germany, the United Kingdom, Italy, and France, the last two being tied practically with about forty-two million each. Poland has about thirty-three million people and Spain has about twenty-five million people. Rumania, Czechoslovakia, and Yugoslavia in descending order have less than twenty but

more than fourteen million. Hungary, Belgium, the Netherlands, Portugal, Greece, Sweden, and Bulgaria are all above six million but less than nine million and may be compared with London or New York. Most of the other nations can be compared with Chicago in population, Estonia, the baby, being little larger than Cleveland.

One of the most significant movements of the nineteenth century was the city growth. In England, for example, only one person in six in 1801 lived in cities of more than twenty thousand, but about eighty years later one in two lived in such

CHART No. 7—POPULATION OF CHIEF EUROPEAN CITIES



cities. Now eight out of ten Englishmen live in cities of ten thousand or more. At the outbreak of the World War London had over seven million people in an area of 692.84 square miles, or about eight times the population of 1800. Berlin, Vienna, and St. Petersburg had slightly more than two million and Paris and Moscow were not far from that number. In 1801 Berlin, Vienna, and Moscow had each a quarter of a million or less, St. Petersburg had two-fifths of a million, and

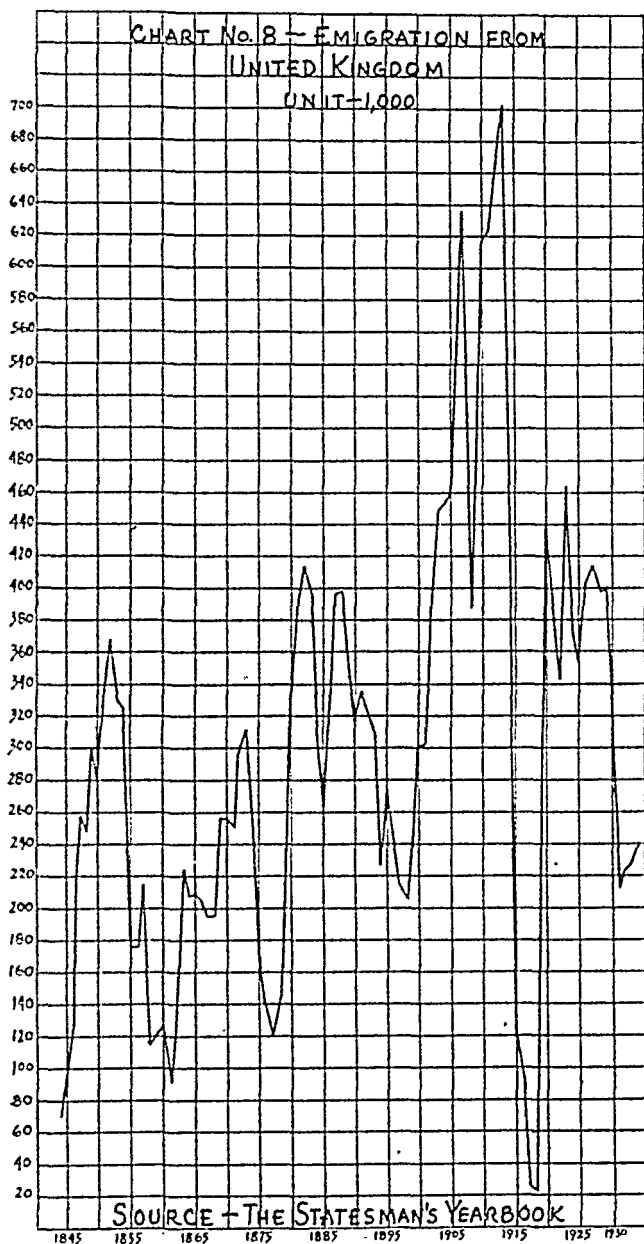
Paris a little more than a half million. Everywhere city growth was going on because of the rise of the factory system, modern industrial methods, improved transportation facilities, increasing wealth, search for higher wages and steadier employment, and the better companionships and amusements offered by the city. Such growth has been made possible only by improved sanitary arrangements.

The city, despite evils, is here to stay, even a World War having only temporary effects. In both England and France city population growth was checked temporarily, and in Austria and Russia city population actually declined. Thus, to use a rather extreme example, Petrograd, or Leningrad, fell from 2,420,000 in 1917 to about 705,000 in 1920, but is now back to approximately the same population as in 1917.

Emigration.—A German economist near the beginning of the present century estimated that since the discovery of America 105,000,000 people had left Europe for the outlying parts of the world. During the nineteenth century probably forty million people left Europe for the four quarters of the globe. The causes of their emigration, whether positive, attracting to a new country, or negative, driving out of the home country, fall into four main groups—economic, social, political, and religious. The first, now the most important, includes unemployment, low wages, overpopulation, temporary natural calamities, and the inability to obtain and to retain land. Social causes, of declining importance in recent years, include caste lines which prevent an individual from rising from one class to another. Failure to share in the government or unsuccessful insurrections as those of 1830-1831, 1848, and 1863 have caused many to migrate, but with the growth of democratic governments the political cause also has declined. Religious factors, as discriminations or persecutions, likewise declining in importance, also have caused many people to migrate. Separatists and Quakers leaving England, Huguenots leaving France, Jews fleeing Russia, and Armenians fleeing Turkey are examples. Rabid nationalism may, however, increase religious persecution and thus promote migration as in Germany in 1933.

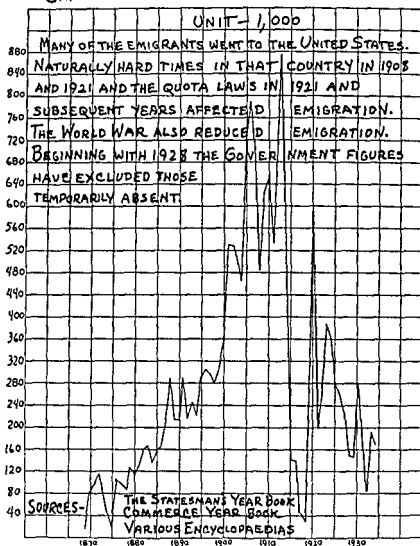
Some examples of recent emigration may be given. Between

1815 and 1906 seventeen million subjects, nearly a third Irish, migrated from the United Kingdom. At first they went chiefly to the United States, and the Irish still do, but now



many go to Canada, Australia, and other British colonies. Between 1847 and 1852 more than 1,200,000, or a seventh of the population, almost equally distributed between the sexes,

CHART No. 9 - ITALIAN EMIGRATION



left Ireland, thus causing that country to lose in population. The movement has slowed up since 1885 due in part to decreased population but also to agrarian reform. German mi-

gration was heavy before 1860, about a million Germans settling in this country in the decade ending in that year. The Civil War checked the movement, but in 1881 a high point of 220,902 was reached.²⁹ Desire for land, objection to compulsory military service, and unsuccessful insurrections were causes. Since 1893 the movement has been slight because of the development of social insurance, industrial growth, and the disappearance of our best land. France has never supplied many emigrants, not over three hundred thousand in the half century preceding the World War. About one-fifth went to the United States. Northern Africa has drawn many French citizens, but they are found also in various parts of the world. Countries of western Europe sent numerous citizens to the United States, Scandinavians being especially anxious to secure good farming land.

Southern Europe has sent out large numbers of emigrants in recent years. Italy has a short-range migration to neighboring countries, a migration which at times reaches a quarter of a million per year. As winter approaches these workers go back home and eke out a miserable existence until spring. At first the emigrants of the long-range migration went to Argentina, Brazil, Uruguay, and Paraguay in large numbers, but in the eighties the movement turned to the United States because of the demand for unskilled labor and from 1880 to 1900 Italy supplied the United States with more emigrants than did any other European country. Italy has been especially fortunate because many of those subjects sent money back home or returned with it. Greece, Spain, and Portugal have profited in a similar way. Russia likewise had a double migration—one movement into Siberia and a long-range movement. Until 1887 the Russians arriving in the United States, chiefly Jews, never exceeded eighteen thousand a year, but at the outbreak of the World War they numbered about three hundred thousand. The emigration from Austria-Hungary also had attained high figures by that date. The United States, consequently, by 1907 received three-fourths of her immigrants from southern and eastern Europe, whereas in 1882 the proportion had been only one-fourth.

²⁹ This was two years before migrating British subjects touched the high point for the nineteenth century.

The war, of course, checked emigration because the countries needed all available men. When the fighting ceased emigration began again, but of the important countries only Germany has shown a gain over 1913, increasing nearly fivefold by 1923. Italy's 1913-figure of about 560,000 was more than three times the 1923-figure. Other South European countries show a similar decrease. And the 1924 two per cent law of the United States, more drastic than the three per cent laws of 1921 and 1922, will keep the figures low. Italy protested the use of the 1910-base for 1922 and the use of the 1890-base for the Act of 1924 was a further discrimination against her and other South European nations. Some discriminations have since been modified in part by the operation of the National Origins clause.

The immigrants received by the various European nations are normally much less than a hundred thousand yearly for any one of them with the exception of France. That country with a stationary population and heavy material losses needed laborers. In 1923 more than a quarter of a million entered the country, the Italians and the Poles being considered highly desirable. In 1921 there were about 1,550,000 aliens in France, but in 1931 there were nearly 2,900,000.

SELECTED REFERENCES

- Abbot, Edith *Historical Aspects of the Immigration Problem* (Chicago University of Chicago Press, 1926) Section I
- Alexander, Thomas, and Parker, Beryl. *The New Education in the German Republic* (New York, The John Day Company, 1929) Chapter I
- Ferenzi Imre *International Migrations* (New York, National Bureau of Economic Research Inc., 1929) Vol. I, Part I
- Macfarland, Charles S. *The New Church and the New Germany* (New York, The Macmillan Company, 1933)
- Rappard, W. L. *Uniting Europe* (New Haven, The Yale University Press, 1930) Chapter II.
- Roman, F W *The New Education in Europe* (London, George Routledge and Sons, Ltd., 1923) Part IV
- Weber, A. F. *The Growth of Cities in the Nineteenth Century* (New York, Columbia University, 1899) Chapters II-IV.
- Wilson, J. D. *The Schools of England* (London, Sidgwick and Jackson, 1928) Chapters I and XII-XIV.

CHAPTER XX.

THE WIDENING AGRICULTURAL REVOLUTION

Reclamation of Land.—The outstanding characteristic of the Agricultural Revolution was the application of science to production. One phase of scientific work was the reclamation of waste land, favored by the high prices of the Napoleonic period. Although James Elkington of England contributed important services in drainage, Smith of Deanston was probably the first to proceed in a scientific way. In the second quarter of the nineteenth century his suggestions gained wide attention. Parliament by the Act of 1846 allowed money for drainage purposes.

Reclamation has progressed in all of the European countries. Despite the fact that much land already had been reclaimed in Netherlands, two-fifths of the area being protected by dikes, the government on June 14, 1918, adopted a measure intended to reclaim half of the shallow Zuider Zee which covered about 1350 square miles. The opening into the North Sea is about nineteen miles wide. In 1925 the one-and-a-half mile dam connecting the west coast with the island of Wieringen was opened. The other dam, 17.5 miles long, joining the island to the eastern shore, is equipped with tidal sluices to care for the waters of Lake Yssel, a huge freshwater reservoir left to care for Yssel River, a branch of the Rhine. It was completed in 1932. The cost of this dam is estimated at \$35,000,000 and the total expenditures on dikes and drainage for a thirty-year period is put at \$190,000,000, or \$20,000,000 less than the estimated value of the nine hundred square miles of land to be added. In Italy also the government is speeding land reclamation schemes, Mussolini apparently having conquered the Pontine marshes which foiled the ancient Romans.

Even in the Balkans, reclamation has begun. In 1926, for example, in Greece an American corporation began the reclamation of the marshes of the Vardar River near Salonica. At a cost of approximately \$25,000,000 about 326,000 acres will provide for 25,000 families, chiefly refugees from Asia Minor. The work was virtually finished in 1933. Similar plans for the Thessalian plains and the Drama and Struma Valleys will increase the land reclaimed to about 1,500,000 acres. Of that total about one-third will be irrigated.

Perhaps the best developed irrigation system in the world is found in the Italian Piedmont and Lombardy. The Po, the chief river, obtains its water from rain and snow, making the stream somewhat warmer than the glacier-fed Swiss torrents, and thus favoring the winter meadow irrigation. The summer irrigation in the Piedmont depends upon the melting glaciers. Lombardy draws her water supply from the left bank of the Ticino River by two main canals, the Naviglio Grand and the Villoresi.

During the twentieth century small irrigation projects were developed in several places in Iberia and large projects were considered. One proposal calls for the irrigation of approximately 120,000 acres in the Guadalquivir region and another proposal on the Tagus in the neighborhood of Villa Franca calls for the irrigation of about thirty thousand acres. In numerous other European countries also reclamation schemes are in progress, schemes usually beneficial to the countries concerned but schemes not helpful to a world of surpluses or faulty distribution dependent upon your point of view.

Improved Machinery.—In England agricultural implements such as Small's plow, the sub-soil plow, the drilling machine, Meikle's threshing machine, and the like came into use. The savings of the steam thresher became marked by the middle of the nineteenth century when James Caird wrote:¹

On the same day on which we saw the steam engine of Mr. Thomas, of Liddington, in Bedfordshire, with which he is enabled to thresh his wheat crop for a penny a bushel, we found other persons paying four or five times as much for the same operation not so well done by hand. On the

¹ *English Agriculture in 1850 and 1851* (London, 1852) p. 499. The total saving, if the production of white corn be placed at 25,000,000 quarters thus amounted to about £2,500,000 yearly.

two corn crops of a four course rotation, the difference in expense of threshing by hand, and by steam, will amount to 8s. an acre...

One or two engines were used to pull multifurrowed plows back and forth across fields. In the fifties a double-engined cable set was applied effectively. Still later the cultivator and the mole plow were steam-handled, mechanical threshing became popular, and steam provided power for the barn machinery. Most machinery, however, including the mower, the self-binder, the tedder and swath-turner, the potato-digger, root-cutters, chaff-cutters, and the drill, developed from manual and horse labor, but received an impetus from the shortage of low-priced labor.

One of the most important contributions to mechanized farming has been the internal-combustion engine. At first it was used to drive such stationary machinery as corn-mills, chaff-cutters and root-cutters, but in the second decade of the twentieth century it made progress in field work. It is used to plow, to cultivate, and to harvest. It is excellent for mole-draining, deep plowing, and subsoiling. It has led to a decrease in the size and weight of machines. It holds promise for rotary tillage, some of the machines using revolving tines to disintegrate the soil and even to assist in moving the machine. Aircraft have even been used experimentally for many agricultural purposes, including sowing. The shortage of fuel during the World War promoted the use of electric power, especially for stationary machinery, but also experimentally for field operations, several European countries now using electric motors for cable plowing. Of course, the use of such machinery allows farmers to fight adverse weather conditions through effective utilization of good days. A tractor may plow in a day six acres whereas a plow team handles less than one acre.²

Numerous improvements entered various European countries. An official report of 1862 stated that France had over one hundred thousand threshing machines, some three thousand of which were steam. Between 1840 and 1870 German

² See Owen, B. J. and Richardson, H. G. in *The Encyclopaedia Britannica*, Fourteenth Edition (The Encyclopaedia Britannica Company, Ltd., London, 1929) Vol. I, pp. 370-373.

states also introduced labor-saving machinery. Despite small farms and rocky soils Switzerland, Norway, Portugal, Spain, and the Balkans are introducing plows and other instruments superior to crooked sticks. In Russia tractor machinery is being introduced rapidly. No country is without at least a few modern implements.

Ignorance, inertia, scarcity of capital, and the small size of the farms, nevertheless, have retarded mechanization. The breaking up of the large farms after the World War likewise exercised a restraining influence. The displacement of workers, moreover, has caused rioting. On the whole, less trouble occurred in the highly industrialized regions of western Europe than in the countries of southern and non-industrial Europe. In the first case workers could find employment in manufactures, but in the second case few openings were available for them. Since 1920 the rapid development of automobiles, tractors, and similar machines has accentuated the agricultural difficulties by lessening the feed demand for draft animals and through encouraging the cultivation of large tracts of semi-arid lands in various countries.

Conceivably mechanized farming may bring back men to the land, for such farming allows more continuous cropping and may put under the plow land which now produces one sheep to the acre. Roland Dudley, perhaps the only English grain grower whose farm is completely mechanized, told L. F. Easterbrook, author of the article, "The Possibilities of Mechanized Farming in England":

Now I can produce corn so cheaply I am thinking of going in for pigs also, because of the low cost at which I can feed them. I shall probably start a unit of pigs. If that succeeds, I shall add a second unit, then a third—maybe a fourth or fifth if things work out all right. By then I may be producing enough pigs to run an abattoir, and I can foresee the day when I may well be employing more people on my land than the old system of farming would have allowed.³

Use of Fertilizers.—Every European country now uses fertilizers of some sort or other. Concerning the importance of such methods M. Leonce de Lavergne thus describes conditions in the Low Countries:

³ *The Nineteenth Century*, September, 1931, Vol. 110, p. 327.

Such as it is, the agriculture of Flanders has no rival or at least no superior. Notwithstanding the wealth continually raised by it the fertility of the land still increases. The reason is that the domestic animals take a large share in this splendid development of life. The Flemish cart-horses are well known. The Flemish cows are some of the best milkers known... Sheep are not numerous, but enormous. Pigs, poultry, and the domestic animals, all in the same proportion.

This multitude of animals produce immense quantities of manure. But the Flemish farmers are not satisfied with this class of manure only: They use the sweepings of the streets, the residue of the oil mills, bones, sea sand, and especially one peculiar sort of application which no other people prepare and use with equal skill, I mean night-soil. . .⁴

The Agricultural Revolution naturally emphasized the importance of plant growth and soil fertility, but scientific fertilization was compelled to wait for the development of chemical methods. Its chief contributors were Justus Liebig in chemical research and Sir John Lawes and Sir Henry Gilbert who conducted various field experiments. Liebig in 1840 named as the basic plant foods nitrogen, phosphorus, and potassium and developed the principle, later stated as the Law of the Minimum, namely, "by the deficiency or absence of *one* necessary constituent, all the others being present, the soil is rendered barren for all those crops to the life of which *that one* constituent is indispensable." Even before the publication of Liebig's report Lawes had begun work at Rothamsted. He discovered that various mineral phosphates treated with sulphuric acid made a superphosphate of lime of fine manure quality. In 1843 he founded the first fertilizer factory for the manufacture of superphosphate of lime and associated with himself Gilbert, a partnership which lasted until the death of Lawes in 1900. Later contributions to the development of plant nutrition and growth relate chiefly to the bacteriology and physiology of the soil. Just before the beginning of the present depression the world used nearly eight million net tons of plant food—nitrogen, phosphoric acid, and potash.

During a large part of the nineteenth century the coasts of Peru and Chile supplied guano, the dried excrement of sea birds. It contained much nitrogen and phosphorus and small amounts of potassium. Toward the close of the nineteenth century, however, the sodium nitrates of Chile, the mineral phosphates of the United States and France, and the potash

⁴ *Economie Rurale de la France depuis 1789* (Paris, 1860) pp. 74, 75.

salts of Germany began to displace the guano. Germany, with her poor soil, was the leading European consumer of fertilizers, using one-third of the total Chilean product in 1913. During the World War, Germany, excluded from her South American supply, took the lead in the development of the by-product nitrogen, or ammonium sulphate obtained from the distillation of coal, and the synthetic nitrogen product or the extraction of atmospheric nitrogen.

Germany in 1914 had a monopoly of potassium fertilizer salts. They were discovered in 1859 in the neighborhood of Stassfurt in a search for rock salt. About nine-tenths of the potash production was used as fertilizer and nearly half was exported. The World War stopped production and furthered the use of scarcely adequate substitutes as sea weed and cement and blast furnace dust. The cession of Alsace-Lorraine to France has broken the German monopoly, France now producing about one-fifth of the world's total. Germany is, however, still the leader with nearly three-fourths of the world's total. Poland and Spain are among the other countries producing small quantities of potash.

Phosphate rock is the chief source of phosphorus. It is widely distributed throughout the world, the United States, France, Italy, Japan, and Germany being the normal leaders. Basic slag, the by-product of steel made from ores with a phosphorus content, is a second source of phosphorus, normally furnishing over one-fourth of the world's fertilizer phosphates. The leading countries are usually France, Germany, Belgium, and Luxemburg.

For fertilizers as a whole the world's leading consumers are Germany, the United States, and France which take one-half of the total. The Netherlands and Germany, partly because of naturally poor soil, lead in fertilizer used per acre.⁵

Agricultural Education.—In 1790 chairs of agricultural and rural economy were established at Edinburgh and six years later at Oxford. The Royal Agricultural College at Cirencester began its work shortly after 1840. In 1890 a law placed with the county councils approximately £750,000, derived

⁵ See Stocking, G. W. in *The Encyclopaedia of the Social Sciences* (The Macmillan Company, New York, 1931) Vol. VI, pp. 193-194.

from the taxation of spirits, for technical instruction, including, of course, agriculture. The instruction falls under two main heads, elementary and collegiate. The education furnished by the county councils is a series of short courses intended to help the boy or girl who is actually living on the land and who intends to remain upon it. The college and university courses provide for a study period of at least two, but usually three, years and lead to a degree or a diploma.

Similar arrangements in general prevail upon the Continent. Bulgaria in 1791 established an important agricultural school at Tirnova. Hungary had three schools by the close of the eighteenth century, Germany had a school at Moeglin in 1806, at Tharandt, Saxony, in 1811, soon thereafter at Leipsic, and in Hohenheim in 1818, and France established a school in Grignon in 1829. The short courses, to be sure, are held for a few weeks or months in the dead season. Possibly a year's instruction may be obtained in a college, but more frequently in a farm institute or school. Then, too, numerous peripatetic instructors by demonstrations and lectures attempt to carry the improvements to the farmer's own home or at least to his market village.

In virtually all of Europe, but particularly in Denmark, France, Germany, and Sweden, voluntary associations or societies play an important part in agricultural education. In Denmark such societies even own and manage some of the Folk high schools and maintain "agricultural counsellors" who teach, lecture, and advise. These schools have succeeded in giving the adult laborers of both sexes a six or even nine-months' course at an institution of learning. Joseph K. Hart, in an interesting article, "The Secret of the Independent Farmers of Denmark," paid high tribute to the People's High School.⁶

Belgium has evolved a system of practical education for women and girls, one which combines rural domestic economy with practical agriculture. The center of the system is the national institution located at Laekens. Sweden, in addition to agricultural colleges and schools and farmers' sons' schools

⁶ See the *Survey*, June 1, 1926, Vol. 56, pp. 312-315 and pp. 340-343.

which give a theoretical three months' course, has about two score schools offering agricultural economy to women.⁷

The developing agricultural education also manifested itself through the establishment of experiment stations. The Rothamsted Station, founded in 1837, is the most important center of agricultural research in England. The next year the Royal Agricultural Society proclaimed the marriage of the farmer and the scientist. Research work has been increasingly supported, the Development Fund started in 1909 and increased in 1921 and the Empire Marketing Board established in 1926 being the chief agents of help. Germany, particularly through the work of von Liebig and other scientists, furthered the establishment of experiment stations. France, long famous for her experiment stations reorganized her system in 1921, but the directing power was exercised by the Institute of Agricultural Research.

Except for the British institutions the agricultural universities of Europe pay little attention to extension teaching. That work is handled by ministries of agriculture or more frequently by farmers' organizations which often enjoy government subsidies. Except perhaps in the case of Austria, Czechoslovakia, Hungary, and Rumania that service seems to be well marked.

Agricultural organizations are old. In France they existed in the eighteenth century and earlier. The agricultural technical societies do research work and in general hold themselves aloof from other organizations. Denmark, however, forms an exception to the general rule. In that region all farmers' organizations center in the Landbrugraadet, a council composed of representatives of the Royal Agricultural Society dominated by large landowners; the 140 or more educational and technical societies; and the various cooperative associations which include approximately seven-eighths of all Danish farmers. Practically everywhere in Europe, the cooperative buying and selling associations have passed the technical associations in importance.

Agricultural societies early manifested an interest in fairs.

⁷ See Dale, H. E. In *The Encyclopaedia Britannica*, Fourteenth Edition, Vol. I, pp 365-367.

In England they date back to the closing quarter of the eighteenth century. Their purpose was to show the improvements in farming and to incite to further progress. One of the earliest of the English shows was held by the Lancashire Society in 1761. Other shows followed, but not until 1821 did the Board of Agriculture, organized in 1793, hold its first national show. Among the important shows are the Concours General Agricole de Paris, the East Prussian Agricultural Exhibition, the International Exhibition of the Cheese Industry and Trade of Italy, and the National Show of the General Association of Breeders in Spain. Such fairs or shows help to educate the public to methods of producing better animals and better crops and stimulate greater interest in agricultural matters.⁸

Agricultural Credit.—Germany was the birthplace of European cooperative credit. Her two main organizations are the nine *Landschaften* or Credit Unions which extend long term credit, thirty to seventy-five years, and the *Raiffeisen* banks which supply short term credit. The former date as far back as 1770, and have won wide acceptance in numerous countries including Denmark, Hungary, Russia, Poland, and Norway. The Credit Union issued bonds based on land mortgages made out in its favor, the bonds being secured by the collective guarantee of the bank members. The borrower received the bonds which he sold in the market for cash. Because the members are liable for loans they are cooperative banks and because the banks enjoy such special privileges as taking possession of property without foreclosure they are also public banks. Agricultural improvement banks, little used, offer facilities for the development of land. Private mortgage companies and various banks also seek the farm loan business. The *Raiffeisen* banks were agitated by Frederick Raiffeisen about 1848. These banks were allowed to make loans and to accept deposits. Their work was limited to separate communities and their members were at first jointly and severally responsible for the total obligations of the organization. A small number of societies later adopted the principle of limited liability. In certain cases these banks purchased such supplies as coal, fertilizers, and seeds for their members.

⁸ See Wiest, Edward in *The Encyclopaedia of the Social Sciences*, Vol I, pp. 544, 545.

Through the guidance of Raiffeisen the local credit societies became affiliated with central loan banks, which, in time, obtained state aid. Probably no other banking organization ever attained such success with such small losses. Post-war inflation hurt agriculture, interest rates rising and loans becoming well-nigh unattainable. The establishment of credit, the forming of the Rentenbank—Kreditanstalt, an offshoot of the Rentenbank and operating through the old credit institutions, and loans from the United States helped to restore agricultural credit and to reduce interest rates.

As early as 1846 the French Parliament discussed agricultural credits, but prior to 1884 little success was attained. The Durand Funds, named after the Lyons lawyer who started them, were mutual aid societies based on the principle of unlimited liability of members. In 1894 and thereafter the government by successive acts improved the position of the agricultural classes and in 1914 Germany was the only country with a more effective agricultural credit system than France. Credit in France is furnished by the Credit Foncier which makes amortization mortgages ranging from ten to seventy-five years or short term mortgages, one to nine years, without amortization features. The Credit Agricole makes short and intermediate loans. The Credit Agricole Mutuel is the cooperative credit bank.

Few British institutions specialize in agricultural credit. Joint stock banks, trades people, insurance companies, and private individuals supply farm credit. The Farmers' Land Purchase Company and the Lands Improvement Company give long-term credit. The former lends money secured by mortgage to buy land; the second, operating under authority of Parliament, lends money for land improvement. Prior to 1914 efforts to establish credit societies based on the Raiffeisen model attained little success. The Agricultural Credits Act of 1923 attempted to supply mortgage loans payable within sixty years and to establish cooperative credit societies which could borrow from the government. Members could hold any number of one-pound shares, one-fourth of each being paid up, and borrow in proportion to holdings. The credit societies were allowed to borrow one pound from the government for

each share so held. So little use was made of the arrangement that the government advances to credit societies were dropped, at least temporarily, in 1927.

In general the various European countries follow either the German or the French system, at times a mixture. All of the countries through private or public agencies extend credit. The movement in general has passed from western Europe to northern, southern, and eastern Europe. In Finland the Central Cooperative Credit Society was formed to provide credit for rural banks. Those banks paid 4.5 per cent interest and charged rural members six per cent. To start such a bank fifteen members are necessary; the average is about fifty. These local banks receive deposits; their liability is unlimited and the loans can not be renewed.⁹

Closely related to agricultural credit is agricultural insurance. In a narrow sense it applies particularly to crop and livestock insurance. Hail insurance, the type most commonly available for growing crops, is said to have started in Germany during the last half of the eighteenth century. Insurance of growing crops against frost has developed in some of the European countries. Efforts to supply all-risk crop insurance have attained little success because of the frequent and sharp drops in agricultural prices. In several European countries a very high proportion of all animals is insured. Mutual companies generally carry such insurance, but joint-stock companies compete for the business. Local societies are frequently reinsured in part at least by regional societies, and often enjoy subsidies from state governments. Mutual livestock insurance has existed in one form or another for seven centuries or more in Europe.¹⁰

Agricultural Cooperation.—The purpose of agricultural cooperation is to lessen the handicaps of the farmer because of the small size of his business and his usual ignorance of commercial education. Especially in Austria, France, Germany, Italy, and Switzerland the struggle of the small farmer bordered on the tragic. The first modern cheese-making enter-

⁹ See Enfield, Ralph in *The Encyclopaedia Britannica*, Fourteenth Edition, Vol. I, pp. 360-362 and Black, John D. in *The Encyclopaedia of Social Sciences*, Vol. I, pp. 529-534.

¹⁰ See Valgren, Victor N. in *The Encyclopaedia of the Social Sciences*, Vol. I, p. 546.

prise was perhaps established at Kiesen, Switzerland, in 1815. The union was simply for turning milk into cheese, each man disposing of his own cheese to the best of his ability. This plan served as a model for the processing of varied farm crops.

Cooperative marketing enables the farmers to obtain better prices at less expense to the members than does individual marketing. Cooperatives sell all kinds of farm products including those of the dairy, pig, poultry, wine, and grain industries. Often local associations are united in federations. Some years ago, for example, two-fifths of all the Danish butter was handled by fourteen export associations functioning for about 580 affiliated societies. Such societies are likewise common in Estonia, Finland, Latvia, the Netherlands, and Russia. Swiss milk producers control the export of cheese. About 550 local egg associations are represented in the Cooperative Egg Export Association of Denmark. The Netherlands, Poland, and Russia also export eggs cooperatively on a large scale. Bacon from Denmark, flax from East Baltic nations, and raisins and currants from Greece are also examples of farmers' cooperative associations.

Probably the best examples of European sales organizations are the Danish bacon and butter companies with their highly standardized products. Pigs are actually housed in sanitary, well-ventilated, electric-lighted pigsties.¹¹ Danish bacon, butter, and eggs virtually conquered the English markets.

Danish bacon sells for several cents more per pound than the Canadian bacon which in turn sells for more than the fat American bacon. Denmark exports about one-third of a billion pounds of the world's best butter yearly, two-thirds to England, and in recent years the Egg Export Association has marketed three-fifths of a billion eggs annually. Each egg is stamped with the mark of the farmer who turned it in. Bad eggs, therefore, may be traced to the right person. The first bad egg, some years ago, cost the farmer \$1.38, the second bad egg cost still more, and the third bad egg was worse than the third strike at baseball, for the farmer lost his membership in the association.¹²

¹¹ See *Harper's Monthly Magazine*, October, 1932, Vol. 145, p. 665

¹² See Smith, J. R. *Industrial and Commercial Geography* (Henry Holt and Company, New York, 1925) p. 222

Hannes Gebhard, Professor of Economics at the University of Helsingfors, launched the cooperative movement in Finland in 1899. The dairies obtained the first successes. The society for agitation was called the "Pellervo." The Central Society was formed for the exportation of eggs. The central cooperative butter export association, known as "Valio," has handled most of the butter exports and has improved and standardized dairy products, thus promoting the economic welfare of the producers. The grading is under state control.

Some of the European countries, far more effectively than America has ever done, have developed cooperative purchasing of products needed by the farmers. That is perhaps more essential for the small farmer than cooperative marketing, for he usually has a near-by city market where he can make sales. Sellers of needed machinery and fertilizers, however, often oppressed him through high prices. The cooperative company can buy in large lots at low costs, sell below the market, and if necessary extend credit on easy terms. On the Continent, particularly in Germany, this type of cooperation is rather closely identified with rural credit associations.¹³

Government Services to Agriculture.—As examples of practical aid we may note the fighting of the silk-worm disease and the Phylloxera pest affecting grapes. The silkworm disease appeared in the Rhone Valley in 1853. The famous scientist, Pasteur, at the order of the government investigated the disease and found that by the use of the microscope he could determine what worms were healthy. By allowing only the sound worms to lay eggs the disease was eventually stamped out, but not until the production had fallen in 1876 to as low as a tenth of the 1893 figures. The Phylloxera, an insect pest, travelled from the United States to Europe and other places. It fastened itself on the roots of the grape vine, and sucked the sap until the vine died. France imported immune American vines by the millions and grafted European vines on American roots, thus saving her industry. Italy, Spain, and other wine-producing countries met the problem in the same way.

Still another method employed by various countries in aiding agriculture was the use of the protective tariffs on grain.

¹³ See Hibbard, B. H. in *The Encyclopaedia of Social Sciences*, Vol. I, pp. 521-524.

Not until 1846 did Sir Robert Peel and his associates secure the repeal of the English corn laws. From 1819 on the French government taxed grain imports, even using surtaxes at times or completely prohibiting imports. Various German states prior to unification gave protection to the farmers. In 1879 Germany really began her high tariff policy, soon developing marked protection for agriculture. In virtually all European countries, particularly in recent years, governments have sought to reserve home markets to their farmers by the imposition of well-nigh prohibitive duties.

Austria between 1890 and 1900 gave elaborate subsidies on the exportation of agricultural products, the erection of necessary buildings, the purchase of farm machinery, and the use of specialists. The technical agricultural societies in Belgium are semi-official. Several countries give particular help to agricultural insurance. France gives state subsidies to cooperative livestock associations and various other types of insurance. Virtually all European nations offer credit facilities to the farmers, usually through cooperative associations.

In several countries, including Estonia and Spain, the hours of agricultural workers are regulated by the government. In other countries, including Austria, Czechoslovakia, Germany, Great Britain, and Poland, agreements relative to working hours may be legally enforced. Many countries have state employment services. Italy uses compulsory unemployment service for her farm workers. Denmark and Holland employ voluntary unemployment insurance. Denmark makes loans to prospective farmers.¹⁴

England by allotments and small holdings acts has helped small farmers, payments being spread over not more than fifty years. Finland has established a land settlement fund operated through communal societies which furnish credit for the land settlement efforts. Floating capital is also supplied by another fund through cooperative societies to small-scale farmers. England has attempted the colony form of settlement with a state guarantee against loss. A director supervises each colony, paying the workers the regular rate of wages but also a share of the profit.

¹⁴ See the *National Geographic Magazine*, August, 1922, Vol. 42, pp. 157, 158 for an interesting article by Maurice F. Egan.

Denmark has made a notable contribution to education by the establishment of the people's high schools. It also uses an extensive staff of expert lecturers. Every French department has a director of agricultural services and one or two professors. Great Britain has developed research in a marked way, but so have France, Germany, and Russia. Most countries use an agricultural organizer. Belgium uses a few score agricultural experts. Experimentation and teaching are heavily subsidized by several German states. Spain permits the maintenance of demonstration fields cooperatively by district farm schools and villages. The Spanish schools are compelled to give short courses. The Russian government offers much help in the way of special favors in reduced taxation and credit facilities for the mechanized collective farms. Like other nations Russia pursued irrigation and other reclamation projects and developed government experiment stations and laboratories. Russia, in particular, has done notable research work in soils.¹⁵

The World Depression since 1929 has accentuated government relief plans. Virtually all over Europe from 1930 to 1933 agriculture received government support. Even yet in Rumania and many other countries efforts are being made to lessen taxes and to fix prices on a fair basis in order to prevent rioting and worse. In truth, scarcely a European country in one way or another fails to bolster the price of farm products by legislation.

One of the methods employed widely in this effort is the restriction of agricultural imports. Such restrictions may be imposed by tariffs, by licensing systems, by import monopolies, by milling and mixing regulations, by levying embargoes for a limited period, by the use of sanitation restrictions and prohibitions, and by the employment of import quotas and contingents.

A second method used is to aid branches of agriculture on an export basis. Occasionally, as in the case of the international sugar agreement, countries may attempt to raise the general level of prices by restricting the exportation of crops. Perhaps the best European example of that system is the

¹⁵ See Crawford, N. A. in *The Encyclopedia of the Social Sciences*, Vol. I, pp. 600-606.

limitation of currant exports by Greece. The general tendency, however, is to encourage the exportation of products, foreign purchases being expected to raise home prices.

A third method employed to bolster the price of agricultural products is the use of production bounties and agreements. England and the Netherlands use such plans for sugar beets. Austria employs the method for grain and Switzerland uses it for wheat. France encourages flax production by such a method and Spain affords aid to various grades of tobacco. Belgium uses the system for the cultivation of new areas of land.¹⁶

Agricultural Policy.—For untold ages countries have assumed one of three attitudes toward agriculture. One of these attitudes is that agriculture should be given particular favor as the foundation of national power. A second attitude is that a country should supply most of its needs but does not need to develop large agricultural surpluses. The third attitude is that a country can disregard agriculture and obtain its foodstuffs and raw materials from outside sources.

Denmark is a good example of the first attitude. For three-quarters of a century, while most countries of western Europe were becoming industrial, Denmark developed intensive agriculture and built up her agriculture, subordinating banking, commerce, and transportation to the purposes of her farming classes. Workers in industry have increased, but these workers are largely in the branches making an intensive use of farm products.

The ample resources of Russia point to the continuance of agriculture as the chief industry. The Revolution of 1905 revealed the need of something for the peasants, but the reforms of Stolypin relative to improved methods and the colonization of Siberia were interrupted by the World War and then by the Revolution of 1917 which soon led to the seizure of the large estates by the peasants. The government since 1921 has attempted to rebuild agriculture, but that policy strengthened the kulaks, or rich peasants, temporarily. Agrarian socialization, marked by the persecution of the rich peasants

¹⁶ See the *Congressional Digest*, February, 1933, Vol. XII, No. 2, pp. 34, 35.

and the development of large collective farms, has developed since 1928.

Since the World War Italy has sought to increase her bread grains and to establish farm finance and cooperative organizations. Italy's reclamation of marsh land is an additional sign of her desire to lessen her dependence upon the more economically produced foreign grains. Her authorities seem to believe that her dense population will not permit the production of surplus exports sufficient to pay for imported wheat. The Fascists object to both emigration and birth control; hence they are likely to continue the stimulation of agricultural production.

The Baltic countries and the Danube nations have more or less definite agricultural policies, especially in the effort to increase the number of small land holders. Because grain exports generally declined due to decreased efficiency in production and increased peasant consumption the governments are attempting to increase agricultural efficiency. Rumania and Czechoslovakia have been most successful in the division of large estates and in the promotion of agriculture. Several countries, particularly Czechoslovakia and Hungary, are trying to balance agriculture and manufactures.

Although Germany seems as much destined for industry as Russia is for agriculture, farming has been consistently favored. The western districts in the closing decades of the nineteenth century became decidedly industrial, but the eastern districts remained agricultural. The typical Prussian Junker was both a militarist and a large landowner. The Junkers lost control of the government, but strange to say, the western industrial magnates continued to favor agriculture, using agricultural tariffs and other means to aid agriculture. When conditions change so that food and raw materials may be obtained from the outside Germany will drop agricultural encouragement and enter into closer relations with the agricultural interests of the East, notably Russia.

England is perhaps the best example of a country normally manifesting little interest in a self-sufficing agriculture. The total area devoted to wheat has declined approximately half

since 1870. Arable land, except for the hysteria of the war period, has shown a tendency to decrease. With the largest navy in the world, excellent credit and transportation facilities, and a highly developed industrial growth England was content to buy her foodstuffs. The German submarine all but destroyed that complacency, increased acreage in crops, reduced pasture land, liberalized land policy, stimulated agricultural education, helped the agricultural laborers, and gave a more liberal encouragement to agriculture in general.¹⁷ Yet arable is declining again and her large colonies whose foodstuffs she needs do not have the monopoly of her markets. For example, in order to market her iron and coal she has arranged to take agricultural and other products of various nations of northern Europe.

Enclosures.—The introduction of capital and tillage in England injured temporarily the small farmer whose position was further depressed by the break-up of the domestic system which robbed him of his by-industry. Enclosures, moreover, deprived him of his rights in the common land. Such enclosures were made primarily because of the growing profitability of grain farming. The ease of making enclosures was another factor in the growth of the movement. As late as 1846 the landed interests controlled eighty per cent of the members of the House of Commons. If the consent of the owners of four-fifths of the value of the land involved could be obtained Parliament passed a specific act authorizing the enclosure and compelling the minority to agree. In 1836 in certain kinds of land the consent of two-thirds of the owners was declared sufficient. Nine years later a Board of Enclosure Commissioners was appointed and was given power to examine proposed enclosures and to carry them into effect. A third factor favoring enclosures was the advocacy of the economists who believed that improved methods and the elimination of the old waste of time, effort, litigation, and the like came from enclosures. In big farms and capital, contended Adam Smith, was England's sole relief. Between 1760 and 1849 more than seven million acres of land were enclosed, about four million from 1790 to 1819.

¹⁷ See Nourse, E. G. in *Ibid.*, Vol. I, pp. 565-568

Arthur Young voiced a bitter criticism of these enclosures, insisting that by nineteen enclosure bills in twenty the poor farmers were injured, often "grossly injured." He held that if enclosures aided the poor, "rates would not rise in other parishes after an act to enclose." He insisted that thousands could truthfully say: "*Parliament may be tender of property; all I know is, I had a cow, and an act of Parliament has taken it from me.*" He urged:

Go to an ale house kitchen of an old enclosed country, and there you will see the origin of poverty and poor rates. For whom are they to be sober? For whom are they to save? (Such are the questions.) For the parish. If I am diligent, shall I have leave to build a cottage? If I am sober, shall I have land for a cow? If I am frugal, shall I have half an acre of potatoes? You offer no motives; you have nothing but a parish officer and a workhouse! Bring me another pot.¹⁸

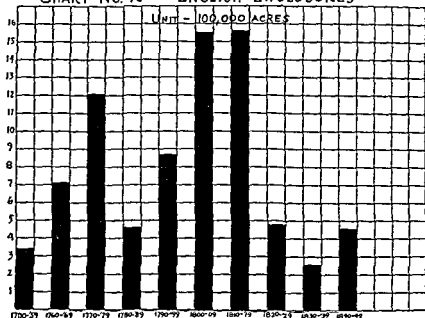
Not only the open-field farming lands, but also the village greens, open commons, gentlemen's parks, and even the old national forest lands were being fenced, at times for buildings or railroads as well as for farming. The health and enjoyment of the people and the beauty of the landscape suffered. And with these drawbacks the dread of government interference in matters of possible private settlement declined. In 1865 the House of Commons appointed a commission to safeguard the open places near London and the next year Parliament authorized the commissioners to regulate the use of all commons within a fifteen-mile radius of London.

In 1865 the interests opposed to enclosures formed the "Commons Preservation Society." Several important contests developed. Earl Spencer of Wimbledon Manor offered to surrender his rights to the common for a small consideration and proposed that one-third be sold in order to obtain money to preserve and to beautify the remainder. The people, nevertheless, preferred the common as it was and when a parliamentary committee sustained their objections Earl Spencer dropped the matter. Berkhamstead Common, three miles long and a half mile wide, supplied pasture, turf, gravel, furze, and picnic grounds for people near-by. Lord Brownlow, the lord of

¹⁸ See Bland, A. E., Brown, P. A., and Tawney, R. H. *English Economic History. Select Documents*, p. 536.

the two manors in which the common lay, began to enclose 434 acres with two iron fences in such a way as to make two distinct parts of the remainder. Augustus Smith, a wealthy opponent of the enclosure, hired 120 London laborers, transported them at night, and had them tear down the two miles of fencing and pile it up neatly on the common. Lord Brownlow sued Mr. Smith for trespass and Mr. Smith sued in the Chancery Court to determine the commoner's rights and to stop the enclosure. Mr. Smith won, thus setting a precedent

CHART No. 10 - ENGLISH ENCLOSURES



SOURCE - OGG, F.A. ECONOMIC DEVELOPMENT OF MODERN EUROPE

for similar cases. Epping Forest was a tract thirteen miles long and one mile wide, a tract which in 1870 had approximately three thousand acres of open common land. For two decades about a score of manor lords had been active in enclosing three thousand acres, often by high-handed measures. The City of London was among the claimants to common rights and in 1871 it started suit against the enclosers on the ground that it had property rights not alone in Ilford where its two hundred acres were located but also in the whole of the

district because it was a royal forest. After an expensive legal battle lasting for three years the manor lords were forced to give up their plans and to return to common the three thousand acres.

The Lord Chancellor in a case appealed to him in 1871, reversing the former attitude, declared that an enclosure should not be made unless there was a plain advantage in it. Five years later Parliament instructed the Enclosure Commissioners to follow the same procedure. Under that rule, of course, the interests desirous of the enclosure were compelled to prove that the neighborhood as well as the individual directly concerned would be benefited thereby. The Commons Law Amendment Act of 1893, furthermore, provided that every enclosure must be advertised so that objection could be made and that the proposal must be submitted to the Board of Agriculture whose approval should be withheld unless the proposed enclosure benefited the public.¹⁹

Enclosures, to be sure, were not limited to England. Early in the nineteenth century manorial strips in Sweden were welded into farms. Between 1870 and 1911 approximately fifty million acres held by 2,500,000 Prussian peasants were thrown into solid holdings, the total being about two-thirds of the cultivated area of the empire. In Russia between 1907 and 1916, 10.9 per cent of the holdings and 10.7 per cent of the village allotments were enclosed. In Lithuania, Latvia, and elsewhere village allotments and lands have been enclosed.

In the long run, enclosures helped in the development of scientific agriculture. Cross-cultivation, better fertilizing, new rotations, reclamation, root crops, and substitution of new crops for fallow made their appearance.

Size of Farms.—Enclosures combined with law and custom tended to make England a country of large estates. According to the returns of the *New Domesday Book* of 1876 less than a million land owners in England and Wales, exclusive of London, owned over thirty-three million acres of land with apparently 269,547 owning 32,862,343 acres. Less than four thousand people with one thousand or more acres each owned about nineteen million acres and the landed aristocracy num-

¹⁹ See Cheyney, E. P. *Industrial and Social History of England*, pp. 259-263.

bering about 2250 owned half of the land. The number of people owning over one acre was about 150,000, hardly 1/170 of the population. In both France and Belgium the landed proprietors constituted about one-seventh of the population. Unlike France, Belgium, Denmark, and most continental countries England has followed the custom of transmitting undivided the estate from father to son. As early as 1290 law denied to landowners the right to sell portions of their estates, to bar their nearest heirs, or to reduce the right of their heirs. Although this law has been obsolete since the fifteenth century, a similar result has been obtained by giving the heir an estate for life, practical ownership thus being vested theoretically in persons who were two generations removed from the actual holders. In 1882, however, the first of the various Settled Land Acts gave tenants for life and many other restricted owners rights of sale and lease irrespective of any agreements.

Although as late as 1815 less than six per cent of the landholding families of France held more than two-fifths of the farms, holdings are small. About four million people own the land. In 1914 about three-fourths of the number held tracts of ten hectares²⁰ or less, or about one-fifth of all arable land. About 150,000 proprietors each held more than 160 hectares, or two-fifths of the total arable land. Now less than five per cent of the farms held by peasants exceed seventy-four acres. The typical farm ranges from twenty to forty acres.

German farms vary widely in size, in the Rhine provinces and Westphalia averaging about ten acres. Farms in the northwest are larger than in the southwest, but in the Junker district of the northeast they are especially large, the small holders being forced out by 1850. Whereas in the southeast only one to three per cent of the land is in farms of more than 250 acres, from two-fifths to three-fifths of the land in the eastern states is in such farms.

Farms in northwestern Europe are generally small. In Belgium the farms average only two or three acres. In Holland and Denmark they are likewise small and ownership is quite general. Two-thirds of the Norwegian farms are less

²⁰ A hectare is approximately 2.5 acres

than six acres in extent. The farms are somewhat larger in Sweden, averaging about twenty-five acres of cultivated land, but one-fourth being less than five acres. Only one per cent exceed 250 acres. Finland's farms average about the same as Sweden's, more than one-third falling below 7.5 acres.

With the emancipation of the Russian serfs land was assigned to the peasants, the average for the empire being about 22.5 acres, but in the fertile and thickly settled parts only 5.5 acres. The various land reforms in the Balkan states tended to break up the large estates and the World War greatly accelerated that movement.

Italy, Spain, and Portugal have both large and small farms, but the average size is not high. The peasant proprietors of Italy, most of whom are in the northern part, number about four million. Prior to the recent reforms which broke up the large estates Spain had 3,426,083 paying land taxes; of that number 277,188 were classed as large estates. Portugal has large estates on the poor land, as is often the case, but like Italy and Spain she also has small proprietors.

One of the most marked effects of the World War was the general diffusion of landownership, which means a decrease in the size of the farms. This decrease was not always due to the expropriation of the land. In England and France, for example, it was due to heavy taxation and sale because of the death of heirs. Within eight years the area of farm land in Great Britain owned by people living on it virtually doubled, rising to one-fifth. From 1919 to 1921 owners actually occupying the land increased forty-five per cent.²¹ Gentlemen farmers and old feudal families sold land to war profiteers, to tenant farmers, and to county and rural districts or other public bodies which at times turned the land into small holdings or allotments, the former for small farmers and the latter for workers who sought to lessen their cost of living.

SELECTED REFERENCES

Bizzell, W. B. *The Green Rising* (New York, The Macmillan Company, 1926) Chapter III.

Bland, A. E., Brown, P. A., and Tawney, R. H. *English Economic History. Select Documents* (London, G. Bell and Sons, 1915) Part III, Section II.

²¹ See Ogg, F. A. and Sharp, W. R. *Economic Development of Modern Europe*, p. 647.

Dennis, A. P. *The Romance of World Trade* (New York, Henry Holt and Company, 1926) Chapter XI.

Fay, C. R. *Cooperation at Home and Abroad* (London, P. S. King and Son, 1925) Part I, Chapters I-IV and Part II, Chapters I-XI.

Gras, N. S. B. *A History of Agriculture* (New York, F. S. Crofts and Company, 1925) Chapters VI, VIII, and IX.

Howe, F. C. *Denmark A Cooperative Commonwealth* (New York, Harcourt, Brace and Company, 1921) Chapters IV-XII.

Mitramy, David *The Land and the Peasant in Rumania* (Oxford, The Carnegie Endowment for International Peace, 1930) Chapters III-VII.

Van Cleef, Eugene *Finland—The Republic Farthest North* (Columbus, The Ohio State University Press, 1929) Chapter VII.

CHAPTER XXI.

AGRICULTURAL CONDITIONS IN THE VARIOUS EUROPEAN COUNTRIES

Agrarian Movements in Great Britain and Ireland.—The peasant revolts of the nineteenth century were revolts of the farm workers against bad social conditions and low wages. In the southern part of the country in 1830 a number of workers, virtually a new class of serfs, unavailingly rose against the system. About five hundred men were transported to Australia. In 1834 as a warning to others six workers were transported because they had taken illegal oaths. This effort at intimidation had the opposite effect. A wave of indignation swept over England, union activity was increased, and forty thousand persons headed by Robert Owen marched to Whitehall to protest against the infamous sentence. Protests eventually led to the pardon of the workers after they had served from three to four and a half years.¹

In 1834 the old Poor Law was reformed, the able-bodied worker going to the workhouse if he needed public help. Joseph Arch described wages as low as ten or eleven shillings a week and the workers herded in gangs, exposed to every kind of weather, and sleeping in barns without decency or comfort. S. Baring Gould in *Cheap Jack Zita* thus comments on the abuse of women: "Twice or thrice the wheat had to be hoed, and the hoers were women. Over them the farmer set a 'ganger' armed with an ox-goad, who thrust on the lagging women with a prod between the shoulder blades."² Largely because of the work of Arch the National Agricultural Laborers' Union was formed in 1872. At one time the union had nearly a tenth of a million members, but the farmers, aided

¹ See *Labor*, February 27, 1934.

² Quoted in Gibbins, H. de B. *Industry in England*, p. 449.

by most of the clergy, opposed it, a lockout weakened it, pasture replaced arable farming to the injury of the workers, and by 1881 membership was down to fifteen thousand.

The growth of suffrage and Liberal gains led to other reforms in the twentieth century. The National Agricultural Laborers' and Rural Workers' Union urged a minimum wage and a weekly half-holiday. War promoted growth and by 1920 the membership of the various branches was about a third of a million, but decline soon came. The government established an Agricultural Wages Board with county wage committees. Even if the government in 1921 did drop the Wages Board and the Corn Production Act which had guaranteed prices for the farmer, three years later it established another Wages Board which used district committees on which representatives of the workers met representatives of the employers as equals.

Peasant sufferings in Ireland and Scotland were marked. Absentee landlords and their representatives oppressed the peasants. Men who improved the land were often forced to pay increased rents because of the very improvements which they had made. The Irish National Land League, 1879-1881, vigorously opposed this system of "rack-renting" and Gladstone's various land acts gained recognition for fairer rents and peasants' rights. State aid later helped the peasants to acquire farms. The Scotch crofters were damaged by sheep breeders and rich sportsmen who wanted to set aside large deer forests. In 1886 Gladstone carried a measure granting fair rents and secure land tenure to the small farmers in seven counties. Shortly before the World War that protection was extended to all of Scotland.

Agrarian Conditions in Other West European Countries.—*Land ownership in France has been rather general, both small and large holdings persisting throughout the nineteenth century. Wages for the few day workers and domestic servants have revealed a considerable increase. Accident compensation has been extended recently to the farm worker.*

At the beginning of the nineteenth century many Flemish peasants seem to have been well-off. Sir John Carr wrote:

...In Holland, I was well informed, there is not a farm that exceeds fifty acres, and very few of that extent. There the economy observed in and about the "peasant's nest" is truly gratifying: the farmer, his wife, and a numerous progeny, exhibit faces of health and happiness; their dwelling is remarkable for its neatness and order throughout; in the orchard behind, abounding with all sorts of delicious fruits, the pigs and sheep fatten; three or four sleeky cows feed in a luxuriant adjoining meadow; the corn land is covered with turkies and fowls, and the ponds with ducks and geese. Such is the picture of a Dutch farm.³

In the Rhine territory annexed to France until 1815 the abolition of serfdom was quick and complete. In Baden, Bavaria, and Wurtemberg emancipation was obtained only during the first five decades of the last century. The reforms of Maria Theresa and Joseph II were broken shortly after the death of the latter in 1791 and the peasants did not completely escape the domination of the nobles until after the Revolution of 1848. Stein and Hardenberg from 1807 to 1811 carried emancipation of the Prussian serfs. The tenants became owners if they abandoned a third to a half of the land. Land held by nobles and day workers increased. Although a reactionary sentiment developed from 1815 to 1820, legislation of an emancipatory nature occurred in Posen and Silesia before 1848. The revolution of that year inaugurated more changes, legislation in 1850 rescinding without pay all remaining manorial rights and services. In eastern Germany the Junkers, or landed nobles, worked their farms by the aid of household servants and day laborers. Conditions for these workers were poor until the second half of the nineteenth century when wages, but not living conditions, began to improve. The industrial cities drew heavily on the agricultural laborers and soon the landowners began to depend more and more on seasonal laborers, chiefly Poles. In February, 1934, charges were made that wages were lower than they had been in half a century. As a result of the German Revolution of 1918 the agricultural labor unions were given legality. The 1933-suppression of labor unions naturally injured the workers.

Denmark, unlike the other countries of western Europe, is primarily an agricultural state controlled by the farmers.

³ *A Tour through Holland, Along the Right and Left Banks of the Rhine to the South of Germany in the Summer and Autumn of 1806* (Philadelphia, Fry and Kammerer, 1807) pp. 197, 198.

Most of the large feudal estates have been broken up into small holdings. Schools and cooperation have been the chief factors in the development of the fine conditions in Denmark.

In Norway during the first third of the nineteenth century the peasants had little political power, but in 1833 they increased their membership in the Storting to forty-five, nearly half of the total. At the beginning of the nineteenth century nearly seven-eighths of the Swedish population were farmers, but now the proportion is less than half. The enclosure movement of the early nineteenth century was bitterly resisted by the peasants. Finland, like Norway and Sweden, is rather far to the north for agriculture. Yet that industry supports the majority of the people, more than half of whom are poorly paid agricultural laborers.

The Farm Workers in Southern Europe.—The Italy of today inherited various agricultural regimes. On the large estates to the north toiled gangs of laborers at seasonal labor for low wages, partly in kind, under cruel and arbitrary contractors. In central Italy the peasants rented land, but always received the smaller and worse half of the crop. The agricultural poverty appeared in the diet, based on corn, and often resulting in epidemics of pellagra. In southern Italy and Sicily the large latifundia persisted in the valleys and plains, but the small farms prevailed in the mountainous territory. Absentee ownership and the use of large estates reduced peasant income, market fluctuations making their condition especially bad. With the toleration of labor unions after 1900 collective contracts drove out the gang leaders and raised wages. The small renters, however, soon found their interests antagonistic to those of the farm workers and seceded to establish unions of their own, unions which often worked with the land owners. The latter, moreover, formed their own organizations, thus checking the success of the workers' unions. After the World War the peasants forcibly seized land, legislation allowing temporary use of uncultivated or unimproved land according to law being unable to check them.

William Jacob, a merchant traveller, spoke very highly of the Spanish peasants of the early nineteenth century. He declared that their "civility to strangers" and their "easy

style of behaviour" were "very remote from the churlish and awkward manners of the English and German peasantry" and that they were superior to the higher orders of Spain "in appearance and moral qualities."⁴ Other writers do not always praise the Spanish peasants, one traveller, for example, visualizing the national decline "in the squalid attire and the sad countenances of an oppressed peasantry." Threshing was performed throughout most of the nineteenth century by poor peasants who drove a number of horses and mules tied together around a ring in which the sheaves had been thrown. The chaff was afterwards separated from the grain by "tossing it from head to heap."⁵

A. M. Huntington near the close of the nineteenth century commented on the backwardness of Spain as due to the absence of the "trading spirit," but at the same time he added: "Of so excellent nature have I found the Spaniard when one knows him that I cannot help believing in his ultimate development."⁶ The best proof of that development, according to some people, was the expropriation of the large estates of the Spanish nobility on September 9, 1931, a three-months struggle for passage being successful shortly after the unsuccessful royalist insurrection of August.⁷

Portugal is a miniature Spain. Some of the poor ignorant peasants still use the heavy springless ox-cart of Roman times and crooked sticks as plows. In recent times cooperation has improved conditions and illiteracy has declined. The general poverty is indicated by the fact that oxen are the favorite draft animals because when too old to work they can be killed and eaten.

Russian Peasants.—The upper classes in Russia seldom hesitated to mistreat the lower classes. And their example was emulated by many. R. K. Porter, travelling in his own vehicle in Russia, had a breakdown. His landlord asked thirty rubles for his share in the repair work. Porter wrote:

...So exorbitant a charge occasioned me to remonstrate: at that moment my servant came up (an honest Russ, who sometime before had been

⁴ *Travels in the South of Spain*, in *Letters written A. D. 1809 and 1810* (Johnson, London, 1811) pp. 337-341.

⁵ *Scenes in Spain* (George Dearborn, New York 1837) p. 213.

⁶ See *Notebook in Northern Spain* (New York, 1897) p. 5.

⁷ See *League of Nations Chronicle*, October, 1932, p. 6.

made free); he inquired what was the matter. I told him the extortion of the man, and that I wanted to beat him down. "I'll beat him down!" cried he, catching the poor wretch by the beard; and laying upon his shoulders, with all his might, an immense bludgeon large enough to be called a club. As the terrified host swung round at the arm's length of my doughty champion, the blows fell like hail upon his back, while he kept bawling out: "twenty, fifteen, ten, etc." till he reduced his demand to the more reasonable sum of two rubles. On this cry, like the last bidding at an auction, the appraiser was satisfied, and the hammer fell. The poor battered wretch was released; and bowing with a graceful air to his chastiser, turned to me. Almost killed with laughter at so extraordinary a sight, I paid him his rubles. I was no less amused at the stupid indifference with which the standers-by regarded the whole transaction..."⁸

Russian forms of punishment at the beginning of the nineteenth century, punishments applied frequently to serfs, were terrible. The chief instrument of punishment was the knout, described as follows by a traveller who tried to use one on the snow:

The handle may be two feet long, a little more or less, to which is fastened a flat leather thong about twice the length of the handle, terminating with a large copper or brass ring; to this ring is affixed a strip of hide about two inches broad at the ring, and terminating, at the length of about two feet in a point: this is soaked in milk, and dried in the sun to make it harder, and should it fall in striking the culprit, on the edge it would cut like a penknife. At every sixth stroke the tail is changed.⁹

A peasant murderer of a Polish nobleman in 1806 was punished severely, banishment to Siberia being decreed if he stood 150 blows of the knout, the marking of his face with a hot iron, and the tearing out of the nerves of his nostrils. The contemporary description reads:

The dreadful ceremony began with a short prayer, then the culprit was stripped naked to his waist, and laid down upon the board: his neck was strapped down to a groove, as were his arms, to blocks upon each side. The first executioner, taking the knout, began by raising himself on his toes at each stroke, taking, as it were, correct distance...After giving six lashes, he was replaced by the other executioner, who gave the same number as the former, thus changing every six cuts, and at each time taking fresh thongs...

On this occasion, the culprit was unable to receive more than fifty; the executioners untied him, and raised him on his legs, the one held his hands behind the man's head to support it; the other took the marking iron, with the letters Vor (thief) cut thereon. This instrument is composed of a number of iron spikes on a flat piece of wood, precisely the same as is used by rope-makers when they clear the hemp; it was fixed in a round wooden

⁸ *Travelling Sketches in Russia and Sweden during the Years 1805, 1806, 1807, 1808* (Phillips, London, 1809) Vol. I, pp. 183, 184.

⁹ *The Annual Register*, 1830 (London, 1831) Vol. 72, B, p. 496.

handle. Striking the handle with his hand, the sharpened irons were driven to the wood, on the forehead and the two cheeks of the culprit. After that he took a pair of pinchers, like sugar-nippers; he put one side of them into the inside of the nostril, and the other the outside of the skin of the nose, and, with a violent jerk, he tore out the nerve; he then repeated the same operation on the other side, and the criminal's torture finished for that day. The poor devil was then placed in a cart, and conducted back to prison.¹⁰

The authorities, moreover, frequently robbed and mistreated the lower classes. Prince Pierre Dolgoroukow, himself a Russian, points out this abuse of Russian artisans, peasants, and strangers by unprincipled officials. Four instances, expressed in his own language, follow:

In one of the chief towns of the empire, some years ago, the wife of the governor-general, well known for her extortions, acquired an establishment of public baths. Close by stood a humble dwelling belonging to a poor man. The lady desired to purchase the house at little more than half-price to enlarge the baths... Nothing was easier than to send a man into exile; and the unfortunate victim in this case yielded, and sold his house at half its value.

In one of the communes of the crown peasants there was in the open country a great stone weighing several tons. One day the chief of that district arrived, called the peasants together, and announced to them that he had received the Emperor's order to command them to transport this stone to St. Petersburg. The peasants clamoured against the order, showed the immense weight of the mass, and entreated the official to get them excused from the task. He consented, took large payments, from these poor fellows, and promised to petition for the recall of an order which, I need not say, had never been issued.

At the busiest seasons for field labour, in hay and corn harvest, for instance, official personages are often seen to arrive among the crown peasants or on the estates of absent proprietors, to make some investigation or transact some imaginary business. They inquire for the moneyed men among the peasants, and detain them three or four days, on the pretence of making them undergo an examination. The urgent necessity of going back to their work determines the peasants to give money to the officials; and the investigation is at an end in the twinkling of an eye.

Once more: in one of the chief provincial towns a foreigner was thrown down by a cow which was at large in the streets. The unfortunate man was carried to the hospital, where he remained two months. When he went out, the police charged him with the cost of the cow's maintenance for the two months, the animal having been detained during the whole period by the police, as involved in an accusation of assault and battery.¹¹

In 1819, the serfs of the three Baltic provinces were freed, but little more was done until the middle of the nineteenth century. During that interval the serfs were compelled to work three days a week on the lord's land, being unable to

¹⁰ *Ibid.*, 1830, Vol. 72, B, p. 497.

¹¹ *La Verité sur la Russie* (Paris, 1860) p. 71.

leave the estates on which they were born. They were ruled with an iron hand, even at times being compelled to marry against their wills merely to increase the population on an estate. In 1858 Alexander II freed the 4,700,000 appanage serfs, granting them full ownership of the land, and the next year he began the liberation of the twenty million serfs on the crown lands. In 1861 by a decree unsurpassed in modern history he freed twenty-three million serfs on the estates of the nobility. The serfs, or peasants living on the estates, became the owners of the houses and the garden plots which they occupied. The land adjoining the farming villages, on the other hand, became the property of the village. Such land was to be divided among the inhabitants at stated intervals. In Little Russia and Poland, where individual proprietorships had prevailed, the land was given to the peasants. The landlord was paid by the state for the land thus taken, for the peasants did not have the necessary money. The loan carrying six per cent interest was to be paid in installments for forty-nine years. About 351,000,000 acres, or one-half of the agricultural land, passed into the hands of the peasants. The principle followed was private ownership of houses and lots and collective ownership of farming land. The latter was vested in the commune or mir, which consisted of representatives of each family under a mayor. One of the duties of the mir was the allotment or the reallocation of the common lands from time to time. The mir was also responsible for the land payments, taxes, and army recruits. For administrative needs the mirs were grouped together in cantons, or volosts, each of which had a president, an assembly, and various tribunals.

Such emancipation, however, was not an unmixed blessing. The peasants lost the old grazing and wood-cutting rights and the opportunity of going to a lord for a loan as in the olden days and suffered under heavy taxation to meet the land payments. To avoid the depopulation of mirs with heavy debts freedom of migration, moreover, was greatly restricted by the authorities. The peasants, furthermore, often found themselves holding only half as much land as they had held under the old system. In many regions, consequently, they lived in

a condition approximating starvation. Arrears in land payments naturally increased, reaching seventy-five million dollars by 1900. Four years later the burden was so heavy that a large part of the indebtedness was cancelled and in 1907 all remaining obligations were forgiven. Thereafter the only peasant liability to the state was the regular land tax.

Because the demand for more land continued the nobles sold one-fourth of their holdings in 1905. A law of 1893, while prohibiting the redistribution of land "at intervals of less than twelve years," required that all improvements made by the peasants be paid for or that equally good land be given. Edicts of 1906 and following finally crystallized into the laws of 1910 and 1911. If there had been no redistribution of lands in communes since 1861, all holders of land were declared owners of that land. In other communes the occupier was allowed to ask the assignment as owner of the land which he then was cultivating. Even during the communistic revolution in Russia the land hunger manifested itself, but in actual practice only the large estates were nationalized, the peasants, peacefully or forcibly, taking possession of them.

The hand of the Soviet authorities has fallen with terrible weight upon the peasants. The kulaki or rich peasants hated to sell at the low government prices. Thousands were shot for resisting collectivization, and a class of five million barred from the labor unions was dispersed. Consistently the Soviet authorities have exploited the peasants for the benefit of the industrial workers. "Why produce large amounts of food-stuffs if we cannot enjoy them?" thought the peasants. And production fell off to such an extent that at the Christmas season of 1932, fifteen million people, or five times the number in 1931, were receiving meals by a system known as "mass feeding." Joseph Stalin, slightly alarmed by the murmurs of the peasants, introduced a tax in kind based on acreage and number of cattle kept. Grain production increased in 1933, but the new plan was not entirely satisfactory and on July 1, 1933, private grain sales were ordered stopped until the grain taxes were paid. Russia's Second Five-Year Plan contemplates the complete collectivization of farming by 1938, the

identification of agriculture with industry, and the turning of farm labor into a variety of industrial labor.

Conditions in East Central Europe and the Balkans.—In Hungary the peasants obtained freedom of movement in 1836. In 1848, infuriated by several bad crops, the peasants of the Danube region staged a revolt which eradicated feudal privileges. A government commission assessed the value of the peasant services and dues, the government helping the peasants pay them off. A somewhat similar policy was adopted in Hungary the next year after the collapse of the national rebellion. Before the World War Count Michael Karolyi of Hungary owned about one-half million acres of rich arable land, and the Eszterhazys and Count Schoenborn had estates of approximately the same size. In pre-war Hungary three thousand magnates held one-third of the agricultural land. As elsewhere small holdings increased.¹² Austria, with few large estates, ordered in 1919 the restoration to the small agriculturists of the land seized for sporting purposes subsequent to 1870.

In Czechoslovakia as the result of a law passed in 1919 the government took charge of all estates of more than 375 acres of farming land or 625 acres of all land. Such land could be sold only by a special government land office. In the same year the government recognized the right of small farmers to land held since 1901. Beginning with 1920 sequestered land was apportioned to landless peasants and others, the total loss for the landlords being about three million acres of arable land and approximately seven million acres of other land. Compensation was based on the prices prevalent from 1913 to 1915 inclusive without allowance for currency depreciation.

A law in Serbia in 1839 gave the peasants land which they had held for the six preceding years. In Yugoslavia, composed in part of old Servian and Montenegrin territory, beginning with 1919 approximately three million acres have been taken from the large land holders, but less than half of that amount is arable land. The little kingdom to the south, Albania, is pastoral and has low wages and bad conditions still.

¹² See the *Nation*, February 12, 1930, Vol. 130, p. 180.

In the early sixties most of the Rumanian peasants were still in the manorial system. They gave raw produce and a certain number of days' work to the large proprietors. In return the peasants received a plot of ground proportioned to the number of animals owned and the right to graze their animals and to collect fuel in the forests. The act enacted in 1864 gave peasant families freeholds varying from seven and a half acres to fifteen acres. The man who had no oxen received the minimum tract; the man with two oxen obtained ten acres; and the man with four oxen received the largest tract. The government advanced the money to the owners, about nine dollars an acre, and expected to recover it from the peasants in fifteen yearly installments.

Not until 1889, however, were the lands which Prince Cuza, about a quarter of a century earlier, had confiscated from the church and convents, one-third of the total area of the country, divided among the peasants in small tracts. The small size of land holdings, the frequent necessity of work at low pay on the large estates, and the cruel treatment meted out to the peasants on communal and state lands leased to Jewish middlemen led to the agrarian revolt of 1907 which soon drifted into a general attack on all large landowners. Although the revolt was defeated, remedial measures came. No longer could public lands be leased to middlemen, the land tax was lowered on small holdings, and new credit facilities were granted to peasants. In 1917 a radical expropriation policy was adopted, total for landlords living abroad, foreigners and corporations, and partial for the large resident holders. The latter were left a maximum of five hundred hectares.

Agricultural life in Rumania, as elsewhere in the nineteenth-century Balkans, was rather primitive. C. F. Keary, in "Rumanian Peasants and Their Songs," pictures the men as frequently getting drunk and beating their wives and children. The girls of the village did much of the field work, picking the corn and the like. The people were rather frugal, seldom eating meat. The chief food was a sort of polenta made from maize and water; to this bread the people added butter, cheese, and a few olives. The *mamalgia*, or polenta, was cooked in a large basin, which was held over the fire on a tripod. The

peasants sold everything as soon as it was harvested; without reserves for years of scarcity they even imported corn from America. The failure of either corn or wheat was a national catastrophe.¹³ And too often, like other peoples, they blamed God for the ills due to their own lack of foresight, an attitude revealing a stupidity equal to that of the girl who was fired from Woolworth's because she could not remember the prices.

About nine-tenths of the people in Bulgaria are interested in agriculture. Turkish rule, official rapacity, and lack of capital and transportation facilities all retarded growth during a large part of the nineteenth century. The peasants tended to worship tradition and to oppose new machinery and new methods. The plow was primeval, rotation of crops was followed only partially, and the use of manures was virtually unknown.

Peasant proprietorship long has been well-nigh universal, the small freeholds averaging about ten acres. The large farms belonging to the Turks were divided among the peasants, and at the beginning of the present century few individuals owned large estates.¹⁴ The rural proprietors pastured their cattle on the commons of the villages and cut wood in the state forests. Family groups, at times embracing scores of people, lived together under communistic conditions on a farm. A house-father ruled the association and a house-mother assigned the work. The members of the community often did other work than farming, the proceeds being paid into the general treasury. If the community included a priest, his fees for baptism swelled the common treasury. Market gardeners were organized into associations. In the spring they often left their homes to cultivate gardens near some town, either in Bulgaria or in some foreign country. In the fall they returned and their earnings, too, went into the common funds.

Since the acquisition of Thessaly the agricultural possibilities of Greece have increased, for Thessaly alone can, if properly cultivated, supply grain for all of Greece. As late as the first decade of the twentieth century, however, the use of

¹³ See the *Nineteenth Century*, October, 1882, Vol. XII, pp. 572-582.

¹⁴ Some of the monasteries did own considerable tracts

manure and the rotation of crops were almost unknown, fields usually being allowed to lie fallow in alternate years. The lack of capital was still another factor limiting Greek agriculture. So, too, were bad roads, usury, sparse population, absentee proprietorship, uncertainty of boundaries, and the land tax, which, in the absence of surveys, was levied on plowing oxen.

The large estates were conducted under the metayer system. The cultivator paid the owner from one-third to one-half of the produce as rent. Living by choice in the large towns the proprietors saw little of the life of their tenants and cared still less. Most of Thessaly's arable land was owned by people who did not live in Thessaly. The government held about one-third of the area of Greece; it usually rented the land out at auction. Neighboring owners and even peasants encroached upon this land which once had belonged to Mohammedan religious communities. Peasant proprietorship was replacing the metayer system. The World War stimulated the movement by the breaking up of the large estates.

In Turkey also the government is attempting to aid the peasants, but in the effort to secure a purely Turkish Moslem state by driving out Greeks and Armenians and by bringing in Moslem refugees and by using prohibitive duties and regulations it has injured, at times, the peasants. The European area is a little less than ten thousand square miles, or about the same size as Massachusetts.

Conditions in Poland and the East Baltic and Northern Countries.—The Polish peasants, oppressed by the landowners or relinquished to the Jews, were even worse off than were their Russian neighbors. Even though serfdom was abolished in 1807, the liberated peasants received no land and were compelled to give compulsory labor services for their land and to pay rack rents, only a small number being regarded as permanent farmers. In the sixties the Russian government sought conciliation, largely to break the power of the Polish nobility. Legislation in 1864, therefore, granted to peasants on private estates, on the lands of such institutions as monasteries, and on estates of the crown possession of the land on condition that they paid a small yearly sum to the state un-

til the debt was cancelled. The state paid the owners in bonds. The average size of the peasant holding thus created was fifteen acres.

In 1904 the peasants owned about three-eighths of the land. About three million out of the seven million peasants at the beginning of the twentieth century, however, had no land; hence each summer nearly a million peasants temporarily went to Germany for work. In 1914, so it is said, less than one-tenth of one per cent of the people held two-fifths of the land. In Poland, as in most other countries after the war, the large estates were broken up, the maximum farm allowed ranging from sixty hectares or about 150 acres to three times that amount.

During the war Poland was a battle ground. "Of starvation, of disease, of child suffering, of hospitals bare of medicines and bandages, of people half naked, unshod, and out of work" Poland had far more than her share. Lack of food made the people unable to resist disease and death rates mounted, mortality from consumption doubling in two years, from typhoid increasing sixfold in two years, and from dysentery more than sixfold in a single year.¹⁵ Improvements, nevertheless, soon came.¹⁶ The percentage of land left waste had been lowered from twenty-five in 1920 to zero in 1922, and the country which was compelled to import approximately seven million metric tons of foodstuffs in 1921, had, the following year, export surpluses of about 500,000 tons of corn, 2,000,000 tons of potatoes, and 150,000 tons of beet sugar. The homes of the peasants are clustered in villages. There is nothing sumptuous about those homes, but they are comfortable, clean, and airy.¹⁷

As in the other smaller Baltic countries the Lithuanian nobles had control of the land, the peasants in general being serfs of German and Russian landlords. Yet prior to the war half of the land belonging to Lithuania was held by the peasants, two-fifths was under holders with more than 250 acres

¹⁵ See Vernon Kellogg's "Sorely Tried Poland" in the *Outlook*, May 28, 1919, Vol 122, pp. 147, 148.

¹⁶ See the *Review of Reviews*, February, 1922, Vol 65, p 207.

¹⁷ See the *Catholic World*, September, 1923, Vol 117, pp. 742-753.

each, and one-tenth was church or state property.¹⁸ In 1921 the Christian Peasant Party carried an agrarian land reform bill which had two chief objects—the breaking up of the large estates and the reduction of the influence of the Polish gentry. The landlords were unusually popular; hence the land was paid for as a matter of course. The holdings usually were limited to fifty acres or less, but occasionally reached 110 acres.¹⁹ Within six years high levels were attained. Thus Valentine O'Hara wrote: "Already the recovery in such vital concerns as agricultural production and livestock inventory has reached the prewar level, and in some instances has surpassed it."²⁰ Part of this development was due to the starting of experimental and model farms, the importation of breeding stock, and the development of cooperative societies. Agricultural education is increasing and American tractors and motors are in use.

Agriculture long has been the chief industry of the Latvian people. The Swedes in the eighteenth century introduced various reforms and sought to protect the peasants. With the Russian conquest, however, conditions grew worse, estates formerly held in fee simple going back to the nobles. Repeated peasant revolts had little effect, other perhaps than a Russian law passed in 1807. That law gave to the peasants the hereditary control of the land farmed by them for their own gain. After Napoleon's defeat, nevertheless, the law was altered in such a way that the landlords retained possession of the land, the peasants being able to obtain it only by purchases. As the nineteenth century wore on the condition of the peasant farmers began to improve. The cooperative movement, loan banks, and similar improvements led to the development of a larger and less dependent group of farmers. In 1920 the large farms were taken over by the state. The Land Reform Act permitted the old landlords to retain from fifty to a hundred hectares, including the center of their estates, with buildings and stock. All excess land was pooled in a state land reserve which held 1,746,966 hectares and was divided into

¹⁸ See Valentine O'Hara's "Lithuania: the Enigma" in the *Nineteenth Century*, July, 1928, Vol. 104, pp. 63-76.

¹⁹ See *Current History*, October, 1922, Vol. XVII, pp. 113, 114.

²⁰ See the *Nineteenth Century*, July, 1928, Vol. 104, p. 69.

123,374 farms, none larger than twenty-seven hectares.²¹ The country slowly recovered from the terrible ravages of the World War which had destroyed ten thousand farms.²²

Says P. A. Speek, in "A Nation That Has Sung Itself Free,"—Estonia,—the people who are of Finnish-Hungarian extraction live on "a pretty piece of land forming a sort of peninsula jeweled with 1,512 lakes and hemmed with 812 islands, and in an area somewhat larger than Switzerland or Denmark."²³ More than half of the land in 1878 was owned and farmed by Germans; more than two-fifths was farmed but not owned by the peasants; and only three per cent was owned by people outside the rank of the nobles. Since that time, however, large estates have been broken up and hundreds of thousands of acres have passed to the peasants. Even before the country became free one-fourth of the peasants had succeeded in buying their own farms. While the war with Russia was still in progress the Agrarian Reform Bill of 1919 provided that manorial estates of more than 330 hectares, or more than half of the agricultural area, should be apportioned in tracts of twenty to twenty-five acres to peasants who had taken part in the war of independence.²⁴ No part of Russia was better cultivated than was Estonia. At the beginning of the present century about one-sixth of the land was under cultivation, over two-fifths being in meadows and grass lands and about one-fifth being in forests. Rye, oats, barley, and potatoes were the leading crops, and cattle-breeding was an important industry. The chief agricultural task after the war was the reorganization of agriculture. The newly created small holdings required stocking, equipment, and general capitalization, and the farmer needed training. The landowner was given this training perhaps most efficiently in the agricultural cooperative societies. These cooperatives are increasing Estonia's specialization in cattle-breeding, dairy farming, and flax production.

Norway, Sweden, and Finland are too far to the north for important agriculture. The first, moreover, is handicapped

²¹ See *Current History*, January, 1929, Vol XXIX, pp 700, 701

²² See the *National Geographic Magazine*, October, 1924, Vol 46, p 402.

²³ See the *Independent*, February 28, 1925, Vol 114, p 235

²⁴ See Sadie L Stark's "Nationalization of the Land in Estonia" in the *Survey*, December 24, 1921, Vol 47, pp 465, 466

by rocky soil, less than four acres in a hundred being used for farming. One-third of the area in Finland is in glacial lakes and swamps, much of it is infertile, and less than one-tenth is under cultivation. Sugar beets, potatoes, carrots, and other root crops are produced. Hardy vegetables thrive, and the grains, including barley, rye, and wheat, are important. The chief agricultural wealth, however, is found in lumbering and dairying. All three countries produce wood products, more than a fifth of the land of Norway being forested. Approximately nine-tenths of Finland's exports in recent years have consisted of wood products in some form or other. The wood products of Sweden are worth more than those of the other two countries combined. On the whole, the Norwegians are the poorest livestock farmers in this group, but the dairying industries have increased in importance in recent decades, some exportations of butter, cheese, and condensed milk occurring.

The Agriculture of Southern Europe.—Everything considered, the most backward region of Europe is the Mediterranean territory. Methods are still crude, sticks sometimes serving as plows. Work animals are usually oxen. Goats supply part of the dairy products. Yields are low. The marked exception to these statements is found in northern Italy.

In the Balkan states grains, fruits, tobacco, flowers, and the like are produced. Yet the chief occupation is the pastoral industry, goats being common and hogs largely making their own living. Even the horses are small in comparison with the horses of western Europe. Yet in these states the government is seeking to improve breeds of animals and crop methods.

The olive, grains, and grapes are characteristic of Italian agriculture. The olive, in truth, serves the purpose of the dairy animal for many Mediterranean countries. Corn is an important grain but in recent years Mussolini has made an earnest effort to stimulate the production of wheat. Gaetano Salvemini insisted that each year saw an overestimate of one-half million tons in order to glorify Mussolini. The protective wheat duty in 1925, increased the next year, stimulated production in southern Italy and the islands. The price of wheat, Gaetano Salvemini held, had been increased from \$45 to \$75

a ton by the tariff, which meant an extra expense of \$30 for a family of five consuming a ton of bread a year. The average wage of the industrial worker is about \$250 and the average wage of the agricultural worker is approximately \$150 a year. A tax of more than ten per cent was thus levied, a tax increased when we remember that unemployment reduces wages. "Mussolini's 'Battle of Wheat' is in reality a battle against the consumer of wheat," concludes Gaetano Salvemini.²⁵

Although the chief industry of Spain is agriculture, farming is much less productive than it was under the Romans and again under the Moors. In some parts of the country methods are as bad as they are in the Balkans and Russia. The plow is a stick with an iron point and crossed by another stick which acts as a share. It scratches the soil to a depth of a few inches only. Some agricultural implements have been imported and in general methods have improved with the introduction of transportation facilities. The river valleys of Valencia and Catalonia are crossed by irrigation canals. In the Ebro and Tagus Valleys the irrigated land yields much more than does the unirrigated land. The main crops are grains, wheat and barley being the most important. Oats and rye are cultivated on the mountain slopes. Corn is of minor importance. Rice is found on the swampy lowlands of Valencia. Buckwheat, millet, and guinea corn are also of minor importance. Olives and grapes vie with grains in importance.

About two-fifths of the soil of Portugal is uncultivated in contrast with one-fifth in Spain. Part of the land is irrigated, irrigation systems dating back to the Romans and the Moors. The important grain crops are maize, wheat, rye, and rice. Potatoes and olives also are leading crops. Gourds, pumpkins, cabbages, quinces, apples, pears, cherries, lemons, oranges, peaches, plums, carobs, and figs likewise are produced. Every district has extensive vineyards. As in Spain the animal industries are important. The Portuguese fighting bulls are bred for strength and speed. Swine are fed in the oak and

²⁵ See *Political Science Quarterly*, March, 1931, Vol. 46, pp. 25-40. In *ibid.*, December, 1931, Vol. 46, pp. 593-595 Professor Giorgio Mortara indignantly denied the charge that the figures were falsified.

chestnut woods. Sheep and goats are raised on the mountains.

Good Utilization of Resources.—As typical of the best mountain farming we may mention the terraced hillside grape farming in Italy and even in Germany, discuss somewhat in detail conditions in Switzerland and refer to a few other countries handicapped by a poor soil, notably, Holland, Denmark, and Germany.

During the first half of the nineteenth century Switzerland suffered because of tariff barriers and the lack of a unified government. Since 1870, moreover, her agricultural population has declined. The country has interesting pastoral industries. In the winter the animals are protected from the cold by stables, at times the lower stories of dwelling houses. When spring comes and the snow recedes, the cattle are driven up the mountains, reaching their highest pastures by the close of August. Concerning this upward movement, W. D. McCrackan writes:

After their long imprisonment in warm pens, the cattle sniff eagerly for the free air of the mountains. They push forward with loud bellowings, stamping the ground, and ringing their bells in impatient peals. The head cow, with the largest bell, strides in front, ready at any moment to poke presuming rivals in the ribs with her horns. Above the din rise the cries of the herders, running before and behind, clad as for a holiday, and carrying huge kettles for making cheese, as well as other necessities for their summer stay. Sometimes there are horses also, and generally a straggling contingent of frightened sheep and goats, driven by little boys who keep up a continuous, and quite unnecessary cracking of whips. The train turns a corner, and leaves a trailing *diminuendo* to vibrate in the crystal air. At times, as it mounts, a puff of wind momentarily renews the clamor; but by degrees the tones of the bells sink into faint tinklings, the herder's calls sound dim and muffled, and the little boys grow so tired, that they forget to crack their whips.²⁶

In making cheese in the five thousand more or less mountain pastures the herders are scrupulously clean. They usually wear tight, short-sleeved canvas jackets, leather skull caps, plain clothes, and heavy iron-shod shoes. The herders and the girls of the upper villages meet at set times at different places to dance and to sing. The men also like to wrestle and to throw weights.

²⁶ *Romance and Teutonic Switzerland* (L. C. Page and Company, Boston, 1901) Vol. I, pp. 78, 79.

In late autumn the mountaineers drive their surplus cattle to market. At the close of summer when the hay of the lower pastures is made and housed, the dangerous process of cutting the wild hay growing on seemingly inaccessible strips begins. Says McCrackan:

On a fixed day, the hay makers start in companies, carrying with them large nets, or pieces of cloth to wrap the hay in. For weeks they live in upper solitudes, where a false step, or an instant's dizziness, is fatal. The hay, thus painfully procured, is stored in the upland chalets until it is required for the cattle wintering in the valleys. There is something piteous in this scraping together of every blade of grass; and yet this mountain hay is sweeter and better the higher it grows, fuller of aromatic herbs, that give it a delicious, healthful flavor for the cattle.²⁷

Of the productive soil approximately two-thirds is used for pasturage and actual farming, more than four-fifths of the used land, in fact, being devoted to pasturage. Cattle in 1866 numbered a little less than a million but they have increased in a marked way. Other animals are of lesser importance, sheep and goats having declined or remained stationary. Swine have doubled since 1866. About one-seventh of the productive area of Switzerland is devoted to grain crops—wheat, oats, rye, spelt, and barley. Although the proportion rises in the Vaud to double that of the country as a whole, the country, like England, is largely dependent upon food from the outside, being able to feed itself only two-fifths of the time. Beets are produced for the sugar and fruits and vegetables are turned into jams and concentrated foods. Vineyards are decreasing in number, but some of the Swiss wines are still well-known. Tobacco is grown to some extent. About one-fourth of the productive area is in forests, which are well cared for and profitable.

In Holland less than one-third of the land is highly productive and more than one-third is unproductive. Much of the land is devoted to pasturage, only England of the European countries having a higher percentage. To retain the land a constant struggle with the sea seems necessary. One-fourth is below sea level and one-half is less than one meter above sea level. Drainage canals are common. Crop yields are high, the

intensity of the cultivation being indicated by the fact that the average wheat yield in Holland exceeds forty bushels an acre, or three times the ordinary yield in the United States. Dairying has been important since the days of Julius Caesar. The Dutch are fine dairymen. They developed the Holstein cattle, perhaps the most efficient of milk producers.

Denmark, afflicted with an infertile sandy soil, changed from general farming to specialized farming. Agriculture revived and today Denmark is famous for her bacon, butter, and poultry products. She is perhaps the best developed agricultural nation in the world.

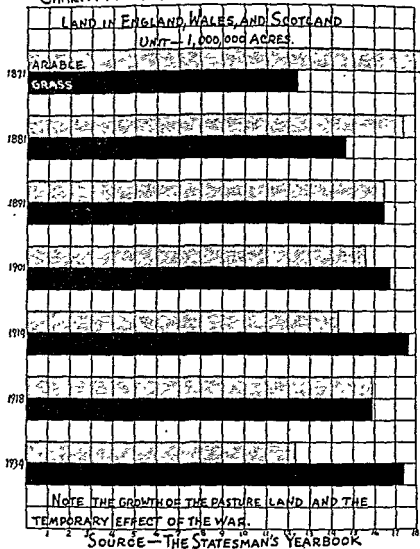
Germany likewise was restricted by a poor soil. Yet science overcame that drawback. Germany's development of the sugar beet and her utilization of potatoes are examples of her science. So, too, is her forestry system. To the large deposits of potash and phosphates Germany has added imported nitrates. Crop rotation is practiced. Live stock are kept in large numbers, animal fertilizers thus enriching the soil.

Agriculture in England and France.—Although until 1800 England was an exporter of foodstuffs, no other large nation of the world is so dependent upon imported food as is the United Kingdom. When the World War began England could feed herself only 125 days in the year, but when it closed, 155 days. Land, however, has been returned to pasturage. British summers with their cool, moist climate are unfavorable to the ripening and the harvesting of grain, but they are very favorable to hay and to grass production. Wheat and barley thrive best on the dry plains of eastern England, but oats fare well in the damper climate of western England, Scotland, and Ireland. Corn does not grow well in the damp climate and its place is taken by such root crops as beets and turnips which furnish less suitable feed for swine than for cattle and sheep.

In 1914 England produced three-fifths of her meat requirements, due primarily to her importation of concentrated foods. Perhaps the most famous of the sheep pastures are the Downs in southern and eastern England. The swine industry is less important than are cattle and sheep raising, but Ireland and parts of England are famous for their pork products. Breeding stock is exported at a considerable profit.

Milk, butter, and cheese are produced in the country as well as imported.

CHART No. II—ARABLE AND PERMANENT GRASS.



France is "Europe in miniature," for she has "every kind of European produce" and "every kind of land tenure." "Variety and abundance are the chief features" of her agriculture. Says Rosamond F. Spedding:

CHART No.12 - FRENCH WHEAT PRODUCTION

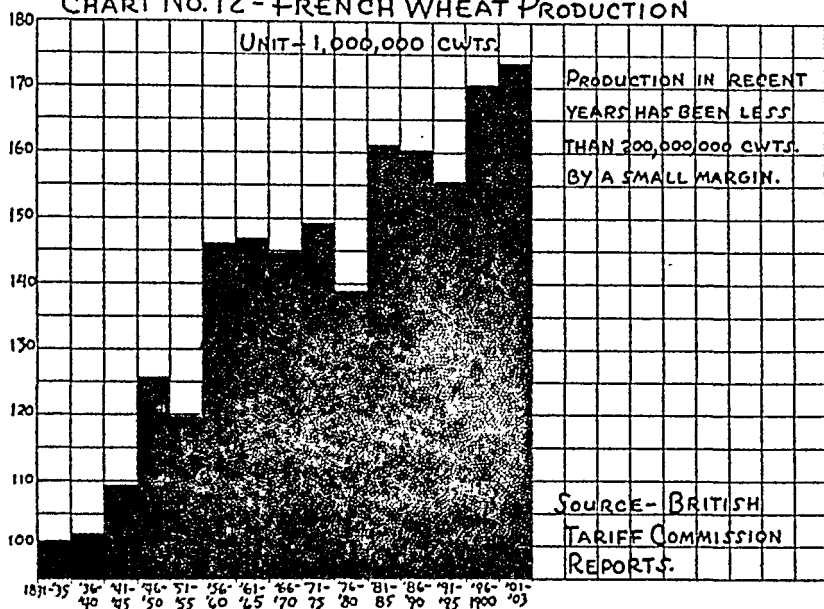
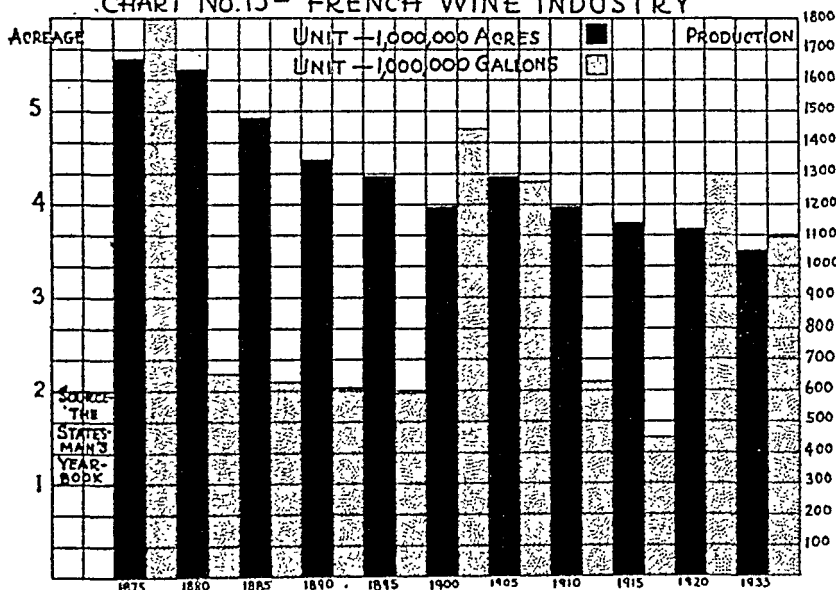


CHART No.13 - FRENCH WINE INDUSTRY



NOTE THE DECREASED PRODUCTION DUE TO PHYLLOXERA AND WAR.

Leaving Lyons behind us, we may proceed down the rich valley of the Rhone, through acres of orchards gleaming in the spring-time with the pink and white blossoms of peach and cherry trees, past terraced vineyards and picturesque villages, clustering along the shores of the great river; then turning our backs upon the wonderful old Roman cities in which at first sight all the life of Provence seems to have centered, we may strike inland across hill, valley, and gorge until we reach the great mountain barrier that forms the eastern boundary of Provence, and we shall find everywhere a land yielding its increase to a numerous and prosperous peasantry. . . The culture of the land in its pleasantest form—the production of fruit, flowers, and vegetables—a fertile soil and a ready market provide ideal conditions for the small holder of Provence.²³

In southwestern France, in the heart of the Pyrennes, life is hard, but the peasants are happy and they do wring a living from the bare soil. In central France the land is almost equally divided between crops and vines. Large, small, and middle-sized farms compete side by side, and because of his intense cultivation the small farmer obtains twice the yield per acre of the large farmer. To the north, in Normandy, the country seems English because of the cattle, the dairy farms, and the apple orchards. Since about 1885 land in corn has declined and pasture has increased. Norman farmers are not thrifty and seem content with tenancy. In the regions where the farmers appear to be the most prosperous agricultural wages seem to be lowest, at times two francs a day whereas for France as a whole they vary from three and a half to four and a half. Norman towns, unlike other French towns, have numerous "degraded and poverty-stricken wrecks of humanity."

Middle Europe.—In a region extending from Belgium and northeastern France on the west through central Europe into Russia three crops are so characteristic as to give the name of sugar beet-potato-rye belt. Naturally the methods vary in this region, being on the whole good in Belgium, France, Germany, and Czechoslovakia, but somewhat backward in parts of Poland and Russia.

Although the French government offered a bounty for beet sugar production in 1806 and although Napoleon ordered that eighty thousand acres be planted in sugar beets in 1811, only one sugar factory survived the Napoleonic Wars, and not until the middle of the nineteenth century did the industry be-

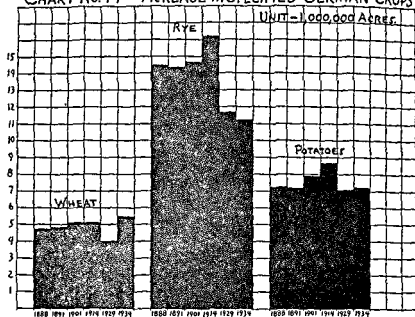
²³ See the *Quarterly Review*, April, 1917, Vol. 227, p. 316

come established firmly. To the Germans more than to any other people is due the credit for the improvement of the beet. In 1836 eighteen pounds of beets were required to make one pound of sugar, in 1882 ten pounds were needed, but now only seven pounds are required. Prior to the war beet tops were worth from \$4.50 to \$5.75 per acre as stock food and the beet pulp used for a similar purpose was worth about \$10.40 per acre, the two combined being practically equivalent to the average value of the American hay crop in the same period. The greatest center of production is near Magdeburg, central Germany, where beets occupy from one-tenth to one-seventh of all cultivated land. The war damaged the beet industry throughout Europe, allowing cane sugar to increase from about fifty-four per cent of the world production to seventy-five.

Light, sandy soils everywhere produce immense quantities of potatoes. Fourteen per cent of the cultivated land of Germany in contrast to 1.2 per cent in the United States is in potatoes and German production is four times that of the United States. Production in Russia normally trebles that of the United States and production in Poland doubles it. In Poland per capita production often passes thirty bushels, whereas in the United States it is not far from four bushels. Normally in Germany two-fifths of the crop is fed to livestock and one-tenth is made into starch, flour, and alcohol. The failure of the potato crop in any one year of the war would have wrecked Germany through the loss of man food, pig food, and alcohol motor fuel. In no other country is the potato such an important food. Professor S. N. Patten even declared that as early as 1870 the lowly potato crop enabled Prussia to overthrow France.

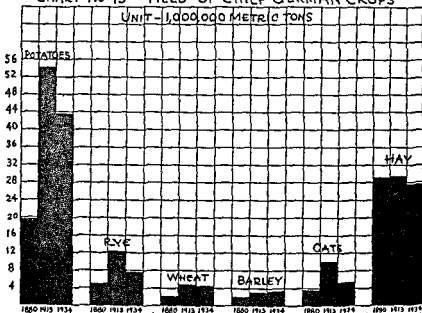
Prior to 1914 Russia normally produced one-half of the world's rye and Germany produced one-fourth. Those two countries are the usual leaders at the present time, but Poland often pushes Germany for second place. The other countries of this belt also have a fairly heavy production of rye. Peasants in the rye belt raise the other grains, but they usually eat rye bread and sell their wheat.

CHART No. 14 - ACREAGE IN SPECIFIED GERMAN CROPS



SOURCE - THE STATESMAN'S YEARBOOK

CHART No. 15 - YIELD OF CHIEF GERMAN CROPS



SOURCES - STATESMAN'S YEARBOOK AND THE ENCYCLOPEDIA AMERICANA

Russian Agriculture.—In the middle of the nineteenth century seven-eighths of the Russian population was engaged in farming. Three-fourths of that population still are peasant farmers or agricultural laborers. Russia has tremendous agricultural possibilities in its land and in its fertile wheat region.

Prior to emancipation the estates were well managed and produced on the average about one-half more per acre than did the peasant lands. On the large estate, too, the modern machinery could be used. Methods of farming, on the whole, however, after emancipation were bad. Machinery was crude. Millions of acres of land were allowed to lie fallow each year in order to recover their fertility. Methods of fertilization, when used at all, were very backward. Yields, consequently, were very low, running only a fourth or a third of the corresponding yields in Germany and France.²⁹ The government tariff policy, moreover, aided bad methods in injuring agriculture. Rates on iron products were exceptionally high, thus discouraging the importation of agricultural implements and keeping agriculture in the state well represented by the wooden plow.

But despite the crude methods, the correspondingly low yields, and the government tariff policy, Russia takes a leading position in the total output. Denied the use of the frozen tundra of the north and greatly limited in the forest region to the south, the country, nevertheless, has approximately six hundred thousand square miles south of the sixtieth parallel of latitude where rye, barley, oats, wheat, flax, and potatoes are grown extensively. In the black earth region to the southwest particularly wheat, rye, buckwheat, corn, and other grains are important. Vine culture further to the south is also important, as is corn. The production of oats, widely employed to feed horses, and of rye, widely used for home consumption, approximated a billion bushels yearly. Prior to 1914 Russia furnished about one-third of the world's barley, large quantities being exported. Both spring and winter wheat to the extent of a billion bushels in combined output were produced. The great increase in production may be illustrated by the growth of grain exports. In 1860 the average export of the cereals was one and a half million tons but forty

²⁹ See the Article by F. P. Verney in *Littell's Living Age*, February 5, 1887, Vol. 172, p. 360.

years later it was more than six million tons. In flax and hemp Russia led the world in 1913 and in potatoes and sugar beets she ranked second to Germany. In horses Russia then led the world, in cattle she ranked third, in sheep she was sec-

CHART No. 16 - OCCUPATIONAL GROUPS

AUSTRIA	31.9	33.5	12.2	22.6
BELGIUM	19.1	46.5	18.3	16.1
BULGARIA		82.4		8.4
CZECHOSLOVAKIA	40.3	36.8	10.0	12.9
DENMARK	34.8	17.0	16.7	21.9
FINLAND	68.9		12.8	12.3
FRANCE	38.3	33.2	11.4	17.1
GERMANY	50.5	41.3	16.4	11.8
HUNGARY	58.2		19.7	8.2
ITALY	56.1		24.6	10.4
NETHERLANDS	23.6	37.8	21.3	17.3
NORWAY	36.8	28.9	19.7	4.6
POLAND	75.9		9.4	9.1
PORTUGAL	57.5		21.9	9.1
RUMANIA	79.5		8.0	8.0
SOVIET RUSSIA	86.7			
SWEDEN	40.7	31.0	14.3	14.0
SWITZERLAND	25.9	44.4	16.6	13.1
UNITED KINGDOM	68.1	47.2	20.9	25.1
ENGLAND AND WALES ONLY ARE INCLUDED UNDER THE UNITED KINGDOM.				
PERCENTAGE IN AGRICULTURE,				
MINING AND MANUFACTURING,				
TRADE AND TRANSPORTATION,				
EXCEPT FOR FRANCE WHERE TRANSPORTATION COMES UNDER ALL OTHER.				
SOURCE - COMMERCE YEARBOOK, 1932.				

ond to Australia, if Siberia is included, and in hogs she was perhaps fifth.

When the war came on, Russia suffered greatly. Her enormous loss in man power and the breakdown in her transportation system meant trouble. Her supplies of agricultural machinery and of rolling stock from the outside were shut off. The mobilization of seventeen million men and two million horses naturally led to a big decrease in cultivated area. The decrease was, of course, furthered by the fact that the peasants could not sell their surplus products. Then, in 1917 came two revolutions and soon civil war which devastated the richest agricultural regions. The Allies, too, began to impose an economic blockade which injured agriculture and industry generally. The system of food requisitions adopted by the Russian authorities was resented by the peasants who produced only enough for their own needs. In 1921 drought and famine added to the suffering. In the spring of the year only three-fifths as much land was under cultivation as in the spring of 1913-1914. The corn yield of that year was only twenty-seven million tons in comparison with sixty-six million tons in 1916. The wheat and potato yields of 1920 were a fourth to an eighth less than they were in 1917. In recent years production has increased for grains, but has declined for animals. About four-fifths of the production comes from the socialized farms, many of which use fine power-machinery and good methods.

SELECTED REFERENCES

Auge-Laribe, Michel and Pinot, Pierre. *Agriculture and Food Supply During the War* (Oxford, The Carnegie Endowment for International Peace, 1927) Part I, Chapters I and II.

Bailey, E. H. S. and Bailey, H. S. *Food Products From Afar* (New York, The Century Company, 1922) Chapters I, II, V, and VII.

Branson, E. C. *Farm Life Abroad* (Chapel Hill, The University of North Carolina Press, 1924) Chapters XVI-XXII.

Clapham, J. H. *The Economic Development of France and Germany* (Cambridge, The University Press, 1921) Chapters I, II, VIII, and IX.

Day, Clive. *Economic Development in Modern Europe* (New York, The Macmillan Company, 1933) Chapters VIII and XIV-XVI.

Karlsgren, Anton (Anna Barwell Translation). *Bolshevist Russia* (New York, The Macmillan Company, 1927) Chapter V.

McFall, R. J. *The World's Meat* (New York, D. Appleton and Company, 1927) Chapters VII and VIII.

Mavor, James. *An Economic History of Russia* (London, J. M. Dent and Sons, 1925) Vol. II, Book V, Chapters I-X.

CHAPTER XXII.

THE BEGINNINGS OF THE INDUSTRIAL REVOLUTION

Early Factories.—In the notebooks of Leonardo da Vinci, 1452-1519, appear sketches of spinning and weaving machinery, roller bearings, rollers for shaping iron, coin presses, turbines, and the like. A stocking-frame was invented in 1539 and clothing-finishing machines also were produced. Beginning with the seventeenth century glassmaking, gold and silver refining, and tinning were improved. A ribbon loom weaving twelve or more widths at once was first employed in Danzig, then in Flanders, and next in England. By means of a wind sawmill the Dutch speeded up ship construction. The French through a "draw loom" wove patterned cloths more easily. The utilization of animal, water, and wind power and the utilization of gears and treadles pointed to far-reaching changes. By 1700, moreover, the work of the scientists relative to atmospheric pressure had laid a foundation for the construction of the steam engine.¹

Even before 1300 some Italians had used a silk-throwing machine. It was imitated north of the Alps and in the first quarter of the eighteenth century it was copied in England. Some authorities regard the silk-throwing mill of John Lombe, 1719, as modern England's "first" factory. Other mills were established, the number probably reaching eight or ten by the beginning of the nineteenth century. Probably drapers and clothiers had enough finishers in their establishments to name their workshops "factories." Early in the seventeenth century Yorkshire had a large establishment for the making

¹ See Heaton, Herbert, in *The Encyclopedia of the Social Sciences* (The Macmillan Company, New York, 1921) Vol. VIII, pp. 3, 6

of alum and numerous paper mills appeared in the last half of that century.²

The rise of the mercantile classes had prepared the way for changes. Especially in the textiles in France, Flanders, and England the merchant was becoming the predominant figure. Economies in supervision, discipline, and time appeared when his dependents were gathered under one roof. In such industries as brewing, mining, soap-making, ship-building, smelting, and tanning, the nature of the work or the equipment employed brought the laborers together. Occasionally they used power-driven machinery. A Swedish factory set up by Polhem about 1700 was noteworthy for its water-driven machinery, its application of the division of labor, and its use of mass production.

The Industrial Revolution Begins in England.—Not until after 1700, however, with the reorganization of the textile industries did the Industrial Revolution really begin. Why it appeared first in England is an elusive question. France, Germany, or Holland might have been the leader. France perhaps had twenty-six million people in 1789 and furnished a better market for large-scale manufactures than did England. France, moreover, had capital, led England in exports and imports, and had peasants who were steadily buying land. Yet perhaps her twenty-six million people compared to England's nine million meant that France had enough labor for domestic industrial production whereas England did not. Germany's industrial development suffered through the scarcity of capital, good roads, individual enterprise, and internal and foreign markets and also because of a redundancy of tariff duties. In truth, she had not yet recovered from the ravages of the Thirty Years' War. Holland had capital, good transportation facilities, a limited population which might have promoted the use of machinery, an important textile manufacture, and good markets in the Indies. Yet her political system was intensely local and clumsy, her guilds were monopolistic and hostile to change, large-scale production was a virtual stranger, and she lacked raw materials.

² See Usher, A. P. *An Introduction to the Industrial History of England*, pp. 355, 356.

What were the circumstances favoring England's leadership? In the first place, England had a stable government and a free people. The fruits of industry, consequently, went to the workers. In the second place, the stable government followed a liberal policy, receiving with open arms refugees, often skilled artisans, from Spain, Holland, France, and Germany. Gild control, in the third place, broke down earlier in England than it did in other countries, and, its successor, the domestic system, in which the capitalist appeared as a purchasing and selling agent, made easier the transition to the factory, for when merchant-manufacturers employed fullers, dyers, weavers, combers, and the like, each working in his particular home or shop, the transition to the factory system where all worked under one roof was a comparatively easy one.

A fourth reason for England's leadership was the greater relative abundance of capital on her soil than in other countries because favorable political and religious conditions had encouraged its accumulation. England in particular lost less in war than did her nearest competitor, France. More capital, therefore, was available for investment in capitalistic agriculture and manufactures. In the fifth place, England's trade was expanding, for as an influence in colonization she had become supreme by 1760. England, in the sixth place, had produced for a long period of time staple goods, and those goods had been marketed in distant parts of the world. Her training in large-scale business, heritage in part from the woolen trade, thus fitted her in the next place, for large-scale factory production. In the eighth place, because of her favorable geographic position and large merchant marine, she had easy access to distant markets. A ninth advantage for England appeared in her labor supply. Insufficient for her expanding markets, often indolent, and usually demanding wages thirty per cent higher than the wages prevailing in France, that labor led manufacturers to substitute, when possible, machines for men, thus hastening the Industrial Revolution.

England, in the tenth place, enjoyed an abundance of coal and iron. When machinery was made of iron and was moved by steam-power her advantages seemed paramount. England,

moreover, had an abundance of raw wool which Daniel Defoe regarded as "an exclusive grant from Heaven." The French seem to have succeeded in securing most of the raw cotton, but the rivalry for raw materials revealed in the eighteenth-century wars ended in favor of the English. Because the raw cotton had to be imported from abroad and because the linen yarn at first used as the warp in cotton goods came from Ireland and Hamburg the cotton trade was capitalistic virtually from the beginning.

Nature of the Industrial Revolution.—The Industrial Revolution, a term coined by Arnold Toynbee, means among other things the change from small tools to heavy machines, from hand labor for the most part to steam-driven machinery, from small-scale enterprise to large-scale enterprise, from little division of work to a marked division of labor, and from some control of the product by labor to little control. Its interdependent changes or developments were at least sixfold: the development of engineering for the manufacture and the repair of steam engines, the improvements in iron-making, the application to the textiles of mechanical devices deriving their energy from water or steam-power, the creation of great chemical industries for the textiles, the unprecedented development of coal mining, and the growth of transportation for the moving of materials and food for the masses.³

James Hargreaves, an example of the English mechanical genius, helped to meet the needs for a rapid method of spinning, one sufficiently quick to allow the spinners to keep up with the weavers. Hargreaves himself was a small master weaver, who, according to tradition, hit upon the spinning-jenny by accident. One day he suddenly entered the room where his wife was spinning at the old high wheel. Her fright caused her to jump up and to "overset the wheel," which continued to whirl, but horizontally with "its spindles in a vertical position." Hargreaves then conceived the idea that one wheel and a continuous band might be able to move a number of spindles, thus spinning several threads at the same time. For the use of the hands he substituted a pair of

³ See Knowles, L. C. A. *The Industrial and Commercial Revolution in Great Britain During the Nineteenth Century* (George Routledge and Sons, Ltd., 1926) pp. 20-25.

bars which were successively separated and closed and which might be adjusted nearer or farther from the spindles on wheels. His first machine, constructed in 1764 by the aid of a neighboring mechanic, and named "Spinning-Jenny" in honor of his wife, spun eight threads. Before long, nevertheless, machines spinning twenty or thirty threads or more at the same time, thus enabling spinners to more than keep up with the weavers, were in use.

Richard Arkwright, an imitator of the old experiments of Wyatt and probably of Highs or Hayes, was the next inventor of importance. Through a clock-maker named Kay, Arkwright apparently obtained a model of Highs' machine. By the new plan, patented in 1769, carded material was run through successive pairs of rollers, each pair moving a little bit faster than the preceding pair, thus stretching the thread. When the thread left the last pair of rollers it was spun by flyers whose model came from the old low spinning wheel. Large numbers of the machines were sold, but the manufacturers in 1785, on obtaining the testimony of Highs, succeeded in securing court annulment of the patents.

In the meantime a talented weaver named Samuel Crompton was working on a spinning machine. He had noticed that roller spinning was faster than the jenny, but that the latter would turn out the finer thread. From 1775 to 1779 Crompton carried on his experiments which were made public in the latter year because the workmen in the vicinity had threatened him with violence. His choice thus seemed to be between destruction of the machine and publicity; he chose the latter. His machine was at first called "hall-in-the-wood" machine or "muslin wheel" and later the "mule" because of its hybrid origin in combining the best features of the inventions of Hargreaves and Arkwright.

Spinning was now far more rapid than were some other processes in cloth manufacture. Paul as early as 1748 invented a carding cylinder which now came into general use. In 1792 and 1793 several wool-combing machines were invented. Over in the United States in the latter year Eli Whitney invented a machine for separating the cotton fiber from the seed. All of these inventions, with Edmund Cartwright's

power loom, supplied the machinery of the textile revolution.

Cartwright was a clergyman who probably would have passed an obscure life had his attention not been called in 1784 to the discrepancy between spinning and weaving and the possibility of applying machinery to increase the rapidity of weaving. Gradually Cartwright brought his power loom to perfection.⁴ Unlike many other inventors he made a large fortune from his contribution and as early as 1786 he received knighthood. In 1809, moreover, Parliament voted him ten thousands pounds as a reward for his services.

The development of the textile machinery, however, was dependent upon steam power. For developments in the steam engine we turn to James Watt, who, about 1763, began the improvement of Newcomen's engine. He closed the ends of the cylinder and used steam to drive the piston back and forth; he introduced the governor, or revolving balls, to secure regularity of motion; and he perfected a rod and crank arrangement which allowed the driving of a wheel fastened by a belt to the machinery to be moved.⁵ These improvements made possible the use of the steam engine in running "spinning machines, power looms, saw mills, and various other mechanical devices," the first application of steam to operate spinning machines being at Papplewick in 1785. Fifteen years later eleven of Watt's engines were in use at Birmingham, nearly twice as many were employed at Leeds, and nearly three times as many were used at Manchester.

In the iron industry, also, various inventions occurred in the last half of the eighteenth century. Smeaton in 1760 perfected a new blowing apparatus which replaced the old bellows. Six years later Thomas and George Cranage took out a patent for a reverberatory furnace and in 1783 Peter Onions patented a reverberatory furnace and a puddling process. The next year Henry Cort obtained a patent for somewhat similar processes. Although most of the essentials of the puddling process seem to have come from the Cranages and Onions, the energy of Cort was responsible for the success of the puddling method. Cort also made contributions, although that method

⁴ See Usher, A. P. *The Industrial History of England*, p. 301.

⁵ Aided by his partnership in 1768 with a Birmingham capitalist named Matthew Bolton Watt obtained his first patent in 1769.

had been suggested as early as 1728, to the rolling process. The iron taken from the puddling furnace was hammered under the old processes to clear it of scoria and cinder, but under the new process the malleable iron was passed through grooved rolls which gave the metal the shape of the space between the rolls and twisted, turned, and squeezed it until it was pure enough for use. Sheet iron could thus be produced by setting the rolls close together and in 1787 John Wilkinson of Birmingham made an iron canal boat about seventy feet long and six and two-thirds feet wide. Its iron plates were about five-sixteenths of an inch thick. Part of the boat, the stem and stern pieces, were of wood. Other needs of the iron industry were met through the melting of pig iron which was poured into molds.

The essence of the new factory system is the bringing together of large groups of workers into big establishments owned by capitalists, the plants being equipped with costly machinery run by water or by steam power. Concentration was required because the machines were ordinarily too expensive to be purchased by the cottager and, in the case of the water-frame, because the people had to be concentrated in one room where water power could be obtained. The water-frame was superior to the jenny which could produce only threads strong enough for the weft, the jenny thus being limited to the production of mixed cotton and linen goods. The water-frame made possible the production of thread strong enough for the warp, pure cotton now for the first time being made in England and the law prohibiting the wearing of cotton goods being repealed in 1774. Crompton in 1775 by combining the jenny and the water-frame produced a machine able to spin yarns for the making of fine muslins. The new machines, along with Cartwright's power loom, were too costly and too heavy for use in the homes. The bringing in of machinery and of power thus made the concentration of the various branches of manufacture under one roof economical. Devices for the promotion of efficiency, variety, and speed in manufacturing, raw materials for the construction of machinery, fuel for power, adaptation of steam power, and developing transportation facilities all led to the rise of the factory system.

That system, after varied inventions and changes, saw its culmination in the life and work of Henry Bessemer. Crompton obtained nothing for his work until Parliament granted him a pension of five thousand pounds in his closing days. Watt won a modest living. Bessemer achieved several fortunes.

Bessemer early revealed his genius in the manufacture of bronze powder, but his greatest contribution grew out of his experiments with projectiles. He attempted to secure the rotation of the projectile by the action of gasses on slots in the end of a projectile rather than by rifling the barrel. The effort was a success, but the high charge of powder required seemed too much for cast iron guns. Bessemer, consequently, began to experiment with iron and steel. He attempted to add carbon by fusing "crucible steel with malleable iron in a reverberatory furnace." To raise the temperature he forced into the furnace a hot air blast which helped to burn gasses normally escaping. This process, patented by Bessemer but dropped later, is generally called the Siemens-Martin open hearth process.

Bessemer dropped the open hearth process when he developed the idea of decarburization. He noticed that a hole in his furnace had been stopped by a piece of pig iron from which the carbon had been removed by heat. He believed that he could make malleable iron from pig iron by internal combustion without puddling or rolling. Eventually he succeeded. Steel which had once sold for three hundred dollars a ton soon fell to thirty-five.

Because, however, the new process would not apply to ores with a high content of phosphorus new methods were necessary, leading to the so-called basic process in which phosphorus was forced to combine with the limestone linings of furnaces. In these early experiments S. G. Thomas and P. C. Gilchrist were pioneers in 1879. Iron magnates seemed indifferent for a while, but in 1881 both in England and on the Continent patents were obtained. The Lorraine ores, hitherto of little use, now came into their own, Germany developing in a marked way and the hard feeling of England toward Germany growing because of that displacement.⁶ Other tensions

⁶ See Usher, A. P. *An Introduction to the Industrial History of England*, pp. 334, 335.

may result when the continued application of electric power in furnaces makes still other displacements.

Some Economic and Social Effects of the Factory System.—One of the effects of that system was the rise of new industries and the impetus given to old industries. Cotton, coal, and iron developed rapidly. The middle classes increased in numbers and in wealth. New contractors for transportation and industrial improvements, new coal merchants, new shopkeepers, and new bankers appeared. Great Britain organized for mass production and sought foreign markets. Cotton, wool, and foodstuffs came from foreign lands and to them went manufactured goods declining in price and thus stimulating consumption. Napoleon attempted to ruin England by excluding her commodities and he did restrict the sale of woolen goods, but England found new tropical markets through the unprecedented development of her cotton goods. Declining prices, moreover, made possible the sale of goods smuggled into Europe and thus kept France from ruining England and becoming the successor to her in industry, Napoleon's cherished ambition.

A second effect of the factory system was an immediate increase in unemployment. Hargreaves and other inventors felt the fury of the mob. In 1779 riots in Lancashire destroyed large numbers of machines. In that year there lived in a Leicestershire village a poor boy of weak intellect by the name of Ned Ludd whom thoughtless people liked to tease. One day Ned pursued a tormentor into a house containing two stocking-frames. Unable to catch the boy the half-wit vented his passion on the stocking-frames. Thereafter the breaking of machinery was said to be the work of Ludd and all such destroyers were named Luddities.⁷ In 1812, because of the suffering due to the war with France, rioting broke out, the leader taking the name of General Ludd. Because of the belief that machinery lessened the need of labor the rioters tried to destroy all machinery, particularly stocking and lace-frames. The riot continued through the winter and into the spring, spreading into Yorkshire, Lancashire, Derbyshire, and Leicestershire. In 1816, aggravated by the depression fol-

⁷ See Browning, Oscar *A History of the Modern World, 1815-1910*, pp. 3, 4

lowing the peace and one of the worst crops on record, it broke out again, centering in Nottingham but spreading over the whole kingdom. Harsh repressive measures, but particularly falling prices for foodstuffs and reviving prosperity, ended the rioting. Yet in 1826 riots were directed against the power-looms in Lancashire and from time to time they appeared elsewhere against the new machinery.

In the third place, we may note briefly some of the effects upon the workers. Home industry was replaced by the factory. Soon workers were infinitely better off in the well-ventilated factories than they had been in the poorly conditioned homes where they ate, drank, and slept with the refuse of their work. Domestic happiness, too, was perhaps promoted by the change, for no longer did the various weary members of the family jostle each other in the same dirty room. For a while little children suffered intensely, but with the introduction of steam power, machinery became larger and heavier, and the places of young children were taken by older children and women. Moreover, inspection and law came to their aid. The old tyrannical dame schools in cellars and garrets, dirty, unventilated, inhabited by a score or two of children and a varied number of chickens, dogs, or cats, gave way to a free State system of education, ever widening as time passed. The factory system likewise gave more independence and better treatment to the young unmarried woman, for she could save her own money earned in the factories. Yet the effects were not uniformly good. The married woman perhaps suffered most from the coming of the factory system. The family income proving insufficient the women, averse to stinting the children and afraid to stint the men, suffered for the necessities of life. The Poor Law, consequently, stepped in and subsidized wages. The reform of 1834 by dropping the doles forced in time an increase in wages to a living family scale.

In the fourth place, the factory system meant a marked differentiation between labor and capital. Large-scale industry destroyed the old personal relationships and brought at least temporarily long hours, low wages, and a shifting of part of the burden to women and children. The factory system, nevertheless, brought thousands of workers together

and thus encouraged the formation of trade unions for the advancement of the interests of labor. Wages, consequently, went up and hours of work went down. For example, the factory weavers of Gloucestershire in 1840 received 11s. 9d. weekly, whereas the outdoor master received only 8s. 1½d. and the journeyman 5s. 7d. Organization, furthermore, in time, forced the elimination of truck which had been attacked in 1831 but which was not placed under the inspectors until 1887.

In the rural districts, sites for water factories or developing mines, no shops and few houses appeared. Factory or mine owners with some justification, consequently, often built houses and deducted the rents, frequently too high. By constructing cottages near the mills they also obtained a longer working day, for the employees could be required to come in earlier and to stay later and to take less time for their meals than when they lived at a distance. Employers, moreover, built shops, at times even public houses, and forced all employees to buy at the shop, sometimes granting credit in advance and thus enslaving their workers by the chains of debt. Nor, when paid in goods, could the laborers leave the employment of their masters, for they had no money with which to move. The working of the system is thus stated by a witness before the inquiry of 1845:

...I used to take a can of ale to my barber to get shaved with and a can of ale to the sweep to sweep my chimney. I was in good receipt of wages and in company with my neighbors I used to take in a newspaper and I was obliged to take a pound of candles at 7d. and leave it for the newspaper the price of which was 4½d. I used to take my beef at 7d. a pound and sell it to the coal woman that I had my coals of for 5d., and any bit of sugar or tea or anything of the kind that my employer did not sell I used to get from the grocer living at the bottom of the yard by swapping soap and starch.⁸

In the fifth place, populations shifted and towns developed. One of the shifts was from the south to the north. That movement had already started, but it was greatly accelerated by the factory system, for the North had almost a monopoly of available water-power and large deposits of coal and iron.

⁸ *Frame Work Knitters Report*, 1845, Vol. XV, p. 77. Some of the women did not object to the system because it prevented husbands from wasting all of their wages in the public houses and beer shops.

Mills, of course, sprang up in the regions thus favored and to them came workers by the hundreds and by the thousands. They came from the South and they came from the North; they came from urban districts and they came from rural districts. In fact, the shift from the rural districts to the towns was one of the most clearly marked features of the period. The North profited more than did the South and in a little while it outnumbered the South, soon surpassing that division in political power. Aside from London the chief wealth and trade of the country are found in the North.⁹

Yet this rapid growth of population and the crowding of the industrial towns led, in the sixth place, to the congestion of the insanitary London districts. In the last half of the seventeenth century the death rate in London was eighty per thousand and in the eighteenth century it was fifty per thousand, or about four times the present rate. This excessive death rate was due to the lack of sanitation. Increased population aggravated the filth and infection and low-standard immigrants, notable the Irish, complicated the problem. Child mortality was terrible, from July 1, 1837 to June 30, 1843 half of the deaths among the factory people of Preston being of children under five years of age. Typhus, small-pox, cholera, various fevers, and the shallow and crowded town burial grounds which poisoned the water supply all increased the mortality. Building restrictions being absent in the coal and iron regions houses were erected anywhere, often back to back. Ash pits and cess pools overflowed, spreading "layers of abomination" on the courts and on the streets. Women dipped water for all purposes, including cooking, out of foul, foetid ditches whose banks were coated with mud and filth, offal and carrion, or drew it from standpipes erected in the filthy undrained courts and kept it in poorly ventilated disease-breeding tenements. Very rare was an adequate or clean water supply before 1850. In the cellars in which cotton weavers followed their domestic operations conditions were equally bad. Often those cellars were only ten or fifteen feet square, at times dug out of undrained swamps, and usually on

⁹ The "New Industrial Revolution" in England, now in progress, partly because of the widespread use of electric power, shows a shift back toward the south.

streets unsewered and flooded by rain, with bare walls down which the water dripped and oozed, making them unfit for rats or dogs, let alone human beings. Transition to the factories improved working conditions, but the homes' long remained shambles.

Why were these evils of factory and domestic life tolerated? Excuses are numerous, but reasons are few. The economists taught that *laissez faire*, or hands off, was the only plan just to all alike. People were intensely interested in their souls and in the souls of others, believing that hard work and suffering would insure bliss hereafter in Abraham's bosom. Work for long hours, weakening the body and lessening resistance to disease, was considered good discipline for all alike, for "Satan finds some mischief for idle hands to do." If sickness threatened, it was merely a discipline from the Lord which should be appreciated rather than condemned. Solomon's dictum, "Spare the rod and spoil the child," was strictly adhered to, thrashings and disappointments being regarded as excellent preparation for the bliss of the hereafter. People honestly believed that the longer they worked the greater would be the output and that the profit came in the last hour of work. Humphrey Davy's safety lamp for the mines did not require much capital outlay, but ventilating and double-shafts were not alone doubtful but costly. Engineers found difficulty both in making machines and in constructing apparatus for guarding machines. So far as the sanitary conditions were concerned the difficulties were at least threefold: people did not know what to do, they did not have the necessary appliances such as drain pipes, and they lacked the necessary powers to carry out the reforms on a wholesale scale. Gradually, however, the doctors began to gain hazy ideas relative to combating fevers. Gradually engineers developed iron drain pipes and other modern appliances. Gradually the municipalities acquired the necessary governmental powers for wholesale reforms.

On the whole, the sufferings in England occasioned or accentuated by the transition from domestic to factory industry were greater than they were in other countries. The transition in England was made during a great war, 1793-1815, and

the heavy taxation and the inability of an exhausted Europe to purchase on a large scale were felt there until 1840. Other countries, for the most part, made the transition in time of peace. England, moreover, as the pioneer, had paid the price of experimentation, failure and success, and had worked out the methods of offsetting the recognized evils. From England's experience other countries thus profited.

Having made this extended analysis we may now enumerate the chief features of the Industrial Revolution common to the various countries and list the disadvantages and advantages of that revolution as they applied in England in particular. The outstanding features of that revolution are:

1. The decrease of handwork and domestic output.
2. The recognition of agriculture and manufactures as distinct employments.
3. The development and accentuation of social classes.
4. The growth of large businesses and corporations.
5. The growth of State education.
6. The regulation of industrial conditions.
7. The growth and improvement of towns.

Temporary disadvantages may be enumerated as follows:

1. Child labor was increased, especially in the busy seasons.
2. The position of the home worker became desperate, many of the old workers being forced by factory competition on to the Poor Law.
3. Truck increased.
4. The abominable insanitary conditions of London were repeated many times in factory towns or in such cities as Liverpool and Glasgow which were increasing rapidly in size.

Certain permanent disadvantages of the factory system also appeared:

1. Work became far more monotonous.
2. There was a loss of independence.
3. Industrial accidents increased.
4. Blind alley occupations, unskilled jobs throwing boys on the ash pile at twenty-five, developed.
5. Country manufacturers lost their by-industry of agriculture, thus suffering a considerable loss in stability, for they were no longer able to fall back on their farms or gardens in times of depression.
6. England changed in character, passing from a self-supporting agricultural nation to an industrial nation dependent upon others for raw materials and foods and for markets for her own products.

The particular advantages of the factory system for England were:

1. The resulting increase in wealth and power made her the leading industrial nation of the world.
2. It allowed her to save herself and Europe from Napoleon.
3. It enabled her to pay her war debt and to lessen the heavy taxation necessary for interest payments.
4. In the long run it gave more employment, regular work, short hours, and higher pay.
5. The English workers in time became skilled artisans, the trainers of European laborers.
6. Textiles fell in price, thus allowing the British to push markets abroad and to furnish cheaper and, in the case of cotton, cleaner clothes for people at home and abroad, for cotton, unlike wool, is easily washable.

On the whole, workers have profited from the Industrial Revolution. Professor William Cunningham declares of a period prior to the close of the nineteenth century that in most machine-industries conditions had so adjusted themselves "that the remuneration of the worker is greater and the conditions under which he does his work are more wholesome than in the old days." He contends also that in trades where little or no machinery is used the suffering is greatest. The factory hand he regards as at least equal to, if not superior to, the domestic worker of the eighteenth century in virtually every particular. L. C. A. Knowles declares that man's capacity for production has outstripped his power for remedying the evils thereby produced and contends that the twentieth-century problem is the development of a corresponding social mechanism for the promotion of human welfare, but insists that the revolution, nevertheless, has allowed the workers to enjoy a variety of food, a clothing standard, and a possibility of change which even nobles and princes of three centuries ago could not conceive.¹⁰

Contributions of and Beginnings in Other Countries.—Although Arthur Young did boast that France had no Arkwright, no Bolton, no Darby, no Wedgwood, no Wilkinson, France did contribute to the common fund of industrial knowledge. She helped with her silk-throwing machines, her Jacquard loom, a tubular boiler, a water turbine, bleaching by chemical means, a sewing machine, and the like. Germany paid particular attention to the connections between science and production. Near the middle of the eighteenth century

¹⁰ See *The Industrial and Commercial Revolutions in Great Britain During the Nineteenth Century*, pp. 79-109.

Margraaf had discovered sugar in beet root. In 1802 Achard found a profitable way of extracting it on a commercial scale, thus giving to Europe a new industry of note. By 1850 American tools and products were entering European markets and Europeans, at first marvelling at the fine machines and the mass products, in time learned to imitate them.

Until the devastating wars of the sixteenth century the southern section of the Low Countries had been the greatest industrial region of northern Europe. Gradually, however, the manufacture of cloth from English wool had shifted from Flanders to England. In 1798 William Cockerill, a wandering Lancashire mechanic, stopped at Verviers and commenced to manufacture English textile machinery. Fifteen years later he and his son imported a Watt steam engine which served as a model, and within a few years they had developed one of the largest machine-works in the world near Liege. French occupation at the time of the Revolution probably did Belgium more good than harm. The French reopened the Scheldt River in 1792 and swept away the vestiges of the gild system. Napoleon, denied English goods, strove to replace them from his own territory, and the Belgian lands profited most. From 1815 to 1830, during the union with Holland, Dutch capital, Dutch commerce, and Dutch colonies aided industry. The breach with Holland, of course, caused trouble, but the Belgian manufacturers increased their use of steam power and prosperity revived. By 1830 the Belgian output of coal was six million tons yearly, a figure not equaled by France until 1850. Yet despite the rapid development of coal mining, industry more than kept pace with it and by 1840 the Belgians were compelled to import English coal.

France, handicapped by gilds which had been revived in part by Napoleon, far inferior to England in stability of political conditions, industrial liberty, skilled labor, capital, and fuel, experienced the Industrial Revolution much later than did England. If France had retained the fine Belgian coal fields she might have threatened England's leadership. Not until 1825, when England removed her ban on the exportation of the new machines, did progress become noteworthy. As late as 1834, in fact, there were not more than five thousand

mechanical power looms in France, but twelve years later the number was more than six times as great. Not until 1819 were the first rolled iron plates manufactured in France and not until a dozen years later were coke-smelting, puddling, and other improvements in iron manufacturing widely practiced. In 1810 France had less than a score of steam engines, all engaged in pumping, but a half century later the number was nearly fifteen thousand. And four years later for the first time the number of coke furnaces passed the number of charcoal furnaces. Until the World War changed conditions, however, coal and iron were not found in close proximity on French soil.

Not until the middle of the nineteenth century did the reconstruction of German industry really begin. Among the causes of backwardness were: conservatism, poverty, lack of markets, and poor political conditions. Agriculture was regarded as the normal industry, and the few manufactures were carried on under the handicraft system. The impoverishment occasioned by the Napoleonic Wars still was felt. Banking capital in 1840 was only one-seventh of that of the United States and only one-eleventh of that of England at the same time. The lack of colonies and poor shipping facilities likewise handicapped producers in the quest for foreign markets. About 1815 Germany was a disjointed group of thirty-eight states, each state long being a law to itself. Each state, moreover, exercised close and, generally damaging supervision of industry. In the seventies, however, the Industrial Revolution really began. The formation of the empire was an important factor, the French indemnity of approximately a billion dollars was another factor, and the acquisition of Alsace-Lorraine was a third important influence. Population increase, the development of transportation facilities, a protective tariff, the acquisition of colonies, the abundance and proximity of coal and iron, and the formation of large business establishments were both causes and signs of industrialization.

Having referred somewhat in detail to beginnings in England, Belgium, France, and Germany we shall point out that in many other European countries the overshadowing im-

portance of agriculture or the lack of raw materials and fuel, sometimes both, delayed the coming of the Industrial Revolution. Such was the case in northern, eastern, and southern Europe. Even though the beginnings of the Industrial Revolution have appeared in all European countries the coming was late in many cases. Austria-Hungary followed the leaders most closely. Holland, commercial and agricultural, evinced little interest. Only Sweden of the Scandinavian countries showed a marked tendency to industrialization by the close of the nineteenth century. Political disorganization retarded Italy prior to 1870 and the lack of raw materials thereafter. Not until the last quarter of the nineteenth century was well under way did progress become marked. Not until after 1890 did marked changes begin in Russia and not until the Soviet regime did Russia approach industrialization. The nineteenth century revealed few signs of the Industrial Revolution in Portugal, Spain, and the Balkan countries. Now, however, the whole world is becoming industrialized,¹¹ even the Balkans and the agricultural regions feeling machine influence. With the developments and manufactures in various European countries we shall deal in the next chapter.

SELECTED REFERENCES

Bowden, Witt. *Industrial Society in England Towards the End of the Eighteenth Century* (New York, The Macmillan Company, 1925) Chapters I-III.

Day, Clive. *A History of Commerce* (New York, Longmans, Green and Company, 1924) Chapters XVIII and XIX.

Herriot, Edouard (R. J. Dingle Translation). *The United States of Europe* (New York, The Viking Press, 1930) Chapter VI.

Knowles, I. C. A. *The Industrial and Commercial Revolutions in Great Britain During the Nineteenth Century* (London, George Routledge and Sons, Ltd., 1926) Parts I and II.

McVey, F. L. *Modern Industrialism* (New York, D. Appleton and Company, 1923) Chapters II and VIII.

Patterson, E. M. *The World's Economic Dilemma* (New York, McGraw-Hill Book Company, 1930) Chapter V.

Usher, A. P. *A History of Mechanical Inventions* (New York, McGraw-Hill Book Company, 1929) Chapters VII and IX-XIII.

Weber, Max (Frank H. Knight Translation). *General Economic History* (New York, Greenberg, 1927) Chapters XXVII and XXX.

¹¹ See Edle, Lionel D. *Economics: Principles and Problems* (Thomas Y. Crowell Company, New York, 1932) pp. 29-34.

CHAPTER XXIII.

MANUFACTURING REGIONS

England.—The first half of the nineteenth century in England was primarily formative, but since 1850 the story of industry relates to increased output, specialization, extension of transportation facilities, and competition with Germany, the United States, and other countries. During Queen Victoria's reign the output of textiles increased fourfold, cotton industries increasing by two-fifths between 1870 and 1900, and woolen industries more than doubling. At the beginning of the twentieth century English cotton mills were producing daily enough yards of cloth to reach three-fifths of the way around the world at the equator. In 1800 about ten million tons of coal were mined annually, in 1850 five times as many were mined, and in 1913 about 287,000,000 tons were produced. In 1800 the production of iron was a half million tons, fifty years later it was eleven times as much, and in 1880 it was eighteen million tons, but a decline has occurred in recent decades.

At the beginning of the twentieth century foreign competition began to raise its head in a threatening manner. The low tariff policy made England a dumping ground for cheap products, and English conservatism prevented the adoption of new methods. The cheap labor of India and Japan supplied China's markets, thus decreasing England's sales. Germany and other countries with high-grade labor began to take other markets because elementary education in England was inferior to that of Germany, English labor unions were charged with restricting output, English technical education was even more backward than was general education, and English manufacturers clung to the old methods. There

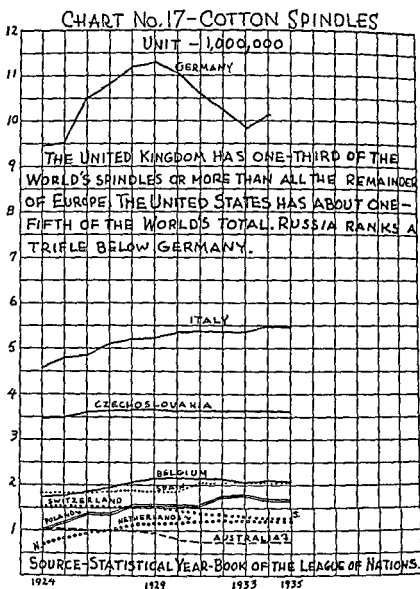
was, however, shortly prior to the outbreak of the World War an effort to overcome those drawbacks. Joseph Chamberlain, a successful manufacturer before he became a statesman, noticed that his French trade in wood-screws was small. He thereupon used the metric system of measurement, put his screws in blue paper packages of the size desired in France, and soon developed an important export trade.

The World War affected industry everywhere. More than a half year passed before the government began to regulate industry, but the policy broadened rapidly, price control and centralized purchase being practiced. The government took control of Russian flax, jute, and wool. In June, 1916, and thereafter annually it requisitioned the domestic wool clip. In 1917 it purchased the entire Australian wool output. In 1917 the government assumed control of the mines and guaranteed to the operators the peace-time profits, but allowed them only five per cent of any excess. In the engineering and munitions industries, in the textile and leather industries, in foods, and in supplies for civilian requirements control was extended. One effect of the war on industry was thus the promotion of consolidation. England, hitherto little affected by the "trust" movement in comparison with Germany and the United States, saw marked consolidation in pig iron, cotton, soap, and other products, but particularly in banking. Five large houses by 1920 had about eighty-three per cent of the deposits of British joint stock banks. Some industries, notably wool, steel, and war munitions, increased during the war, but cotton and flax, on the other hand, decreased. By 1923, following a fall from the high output of 1920, production was about equal to that of 1913 and in 1924 it passed the production of any pre-war year by at least ten per cent.¹

Great Britain, to comment on specific products, ranks next to the United States in the production of high-grade coal. In more than a score of fields this coal is mined. Coal more than any other single geographic factor explains England's industrial greatness. In iron, too, England is fortunate, that mineral being mined in fifty different places. Some of the iron

¹ See Tolles, N. A. and Douglas, Paul H. in the *Journal of Political Economy*, February, 1930, Vol. XXXVIII, p. 15.

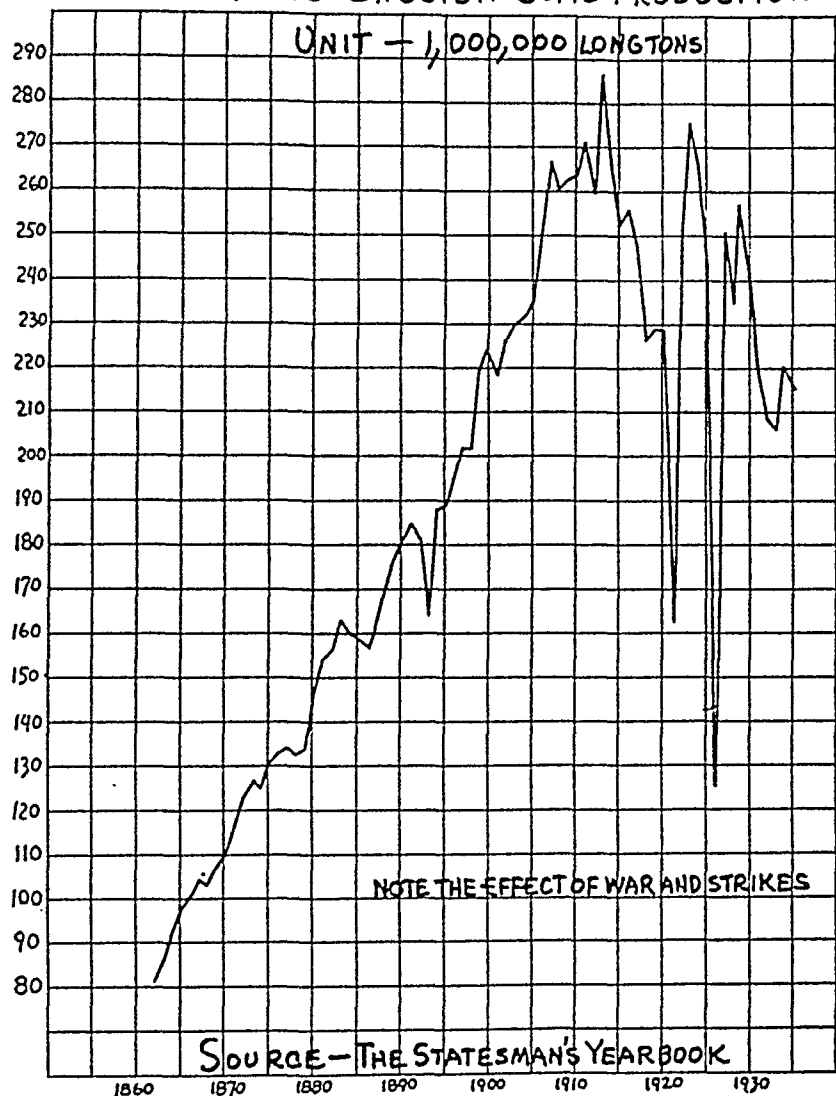
fields are near the coal and also the limestone necessary as a flux in smelting. Tin, copper, lead, and zinc are relatively unimportant. Limestone, building stone, clay, oil, shale, though



Scotland is a pioneer in shale distillation, and salt are other products, but their combined output now seldom exceeds thirty million dollars.

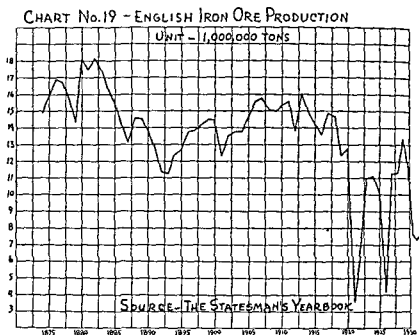
The textile industry is located in western England where the damp climate favors it. Most of the cotton, too, comes from the United States; hence the natural ports of entry are

CHART No. 18 ENGLISH COAL PRODUCTION



on the west. Water power and coal, moreover, are obtainable to the west of the Pennine Chain. Within a radius of fifty miles of Manchester are more than a third of the world's

spindles. To the east of the Pennine Chain the woolen manufactures are largely concentrated. England tends to specialize in the finer textiles, leaving low-grade textiles, notably cotton, to the United States and to other countries. Linen is especially important in northern Ireland, Belfast being the center of manufacture. About as many people as live in New York City are supported by the earnings of the English textile workers. Textile products normally constitute a third of England's exports. In the course of a single century cotton



manufactures increased 120fold, linen increased sixfold, and woolen increased threefold.

England, more important relatively in ship construction than in textiles, is the greatest ship-building country in the world, the Clyde River region leading. Prior to the World War the United Kingdom constructed about as much tonnage as did the remainder of the world, this high rank being due to the demand occasioned by commerce and colonies, the raw materials necessary for construction, mass production, and skilled labor.

Some other manufactures may be mentioned without discussion: leather and rubber goods, pottery, chemicals, glass, food products, vehicles, machinery, clothing, and the like. In fact, scarcely anything can be mentioned which England does not manufacture.

Belgium.—One important group of manufactures consists of minerals. The coal production at the outbreak of the World War was about one-half that of France. At one time also Belgium mined large amounts of iron within her own limits, but now she depends largely upon the near-by iron fields of Lorraine and Luxemburg, which supply the needed ore at a low price. Because of this advantage, Belgium is an important manufacturer of arms, hardware, locomotives, machinery, rails, and structural steel. Liege is second only to Essen in the manufacture of arms. At one time Belgium mined large amounts of zinc and thus built up a zinc-smelting industry. The zinc ores virtually have been exhausted, but the smelting industry has thrived on imported materials, chiefly from Australia. The lead-smelting industry is less important than is zinc-smelting.

A second important group of manufactures is textiles. The "persistence of a rooted industry" is illustrated no better in the western world than in the Belgian textile industries which have had a continuous existence of a thousand years or more. Wool is now imported from all parts of the world and is exported as manufactured material. The linen mills owe their origin to the native flax, which is retted chiefly in the Lys. Lace-making at one time gave employment to 150,000 people in their homes, but it has declined or given way to the machine product. Cotton, carpets, rayon, and silk are included in the textile group.

A third group of manufactures may be labelled as miscellaneous. Fine plate glass is an important product; nineteen-twentieths is exported. Aluminum goods, chemicals, paper, and virtually all other products known to a complex industrial world are produced.

Naturally the World War with its forced occupation, devastation, and heavy indemnities affected industry in a marked way. Laborers became restive over the high cost of living

when the employers and the government hesitated to raise wages. Disappointment over the delays in reparations and the declining prestige of the country likewise promoted restlessness. Still such products as coal, coke, pig iron, steel, glass, yarn, wool, artificial silk, and paper soon recovered and passed the 1913 figures. Many observers regarded the quick recovery as little short of miraculous. Eugenio Artom in *La Tribuna*, September 23, 1920, ascribed the "marvelous recovery" to "the unhampered initiative of employers, and peace between the social classes." Emil Cammaerts states that the Belgian worker has proved very adaptable to post-war conditions "because of his connection with the land, and because, together with the peasant, he possesses the faculty of making good the damage caused by war and civil strife."²

France.—The industrial freedom conferred by the Act of 1791 was infringed by the regulation of prices, quality, and the partial reestablishment of the monopolistic gild.³ Napoleon, however, resolutely opposed the reestablishment of the gild in its entirety. After his exile most of the trades were thrown open again, but the butchers' gild lasted until 1858, the bankers' gild until five years later, and the printers' gild until 1870.

In the last-mentioned year the total value of manufactures was about five billion francs, including those of Alsace-Lorraine, but twenty-seven years later it was three times as much without those of Alsace-Lorraine. In a dozen years, 1890 to 1902, horse-power used in the textile industries increased two and a half-fold. From 1870 to 1911 the quantity of coal mined increased threefold and from 1891 to 1906 the output of iron increased about seventy-one per cent. Horse-power from steam engines increased sevenfold in the same fifteen-year period. In 1870 the number of patents granted to inventors was less than three thousand, but in 1905 it was nearly thirteen thousand.

France suffered direct losses as the result of the war. The German invasion rolled over the heart of industrial France, the ten invaded departments of the north and northeast having two-fifths of the total steam-power of the country. These

² See the *Edinburgh Review*, January, 1922, Vol 235, pp. 108-121.

departments produced nearly a third of the cotton manufactures and from about three-fifths to four-fifths of the alcohol, steel, coal, sugar, and wool. In 1913 the output of coal was forty-one million tons, but in 1915 it was less than one-half that amount. In 1913 iron production amounted to about twenty-two million tons, but it was less than half of that amount in 1914 and during the next four years not much in excess of two million tons.

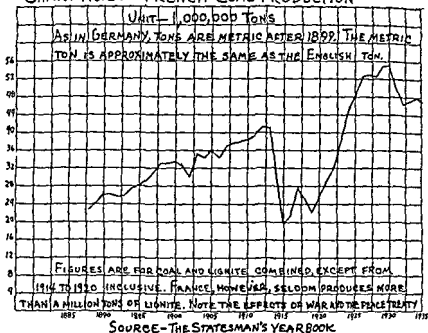
The war, however, had some beneficial effects on French industry. Some old machinery was scrapped and new scientific methods of production were introduced. The tendency toward the standardization of output also was accentuated. New industries, notably such chemical products as sulphuric acid, aspirin, dyestuffs, artificial silk, and photographic articles, were well established. Taylorism, or scientific management, which reduces labor costs through the elimination of unnecessary movements, moreover, was introduced in some of the French industries, including large shipyards. Another effect was the stimulus to large-scale industry, especially in food and metallurgy, but the consolidations seemed to partake more of the nature of marketing than of production.

In the economic sphere, in contrast to the political, decentralization occurred. France was divided into about a score of "economic regions" centering roughly around the chief industrial cities. Each region had one main committee and several subcommittees. On these committees were representatives of commerce, industry, and agriculture chosen by those interests. The committees, though without compulsory powers, afforded worth-while services in obtaining labor, in introducing new factories and new machinery, and in working out a unified program for industrial regional production. Beginning with 1917 such a program was worked out gradually, and by 1921, though with some modification of regional boundaries, a scheme was functioning in the handling of interdepartmental economic matters. Such cooperation of governmental administrative officials and leading business men seems to hold much promise for French industry.

Nor should we overlook the fact that France after the war recovered Alsace-Lorraine with its textile and mineral in-

dustries. She also obtained the privilege of exploiting the Saar coal field for fifteen years, the promise that Germany would make good the difference in the output of the ruined mines before and after the war for a period not to exceed ten years, and would deliver annually seven millions tons of coal to pay on the reparation bill. The Saar coal had little value for the ores of Lorraine because it was not a coking coal. The Lorraine furnaces shut down because of the lack of coke, cancelled their deliveries, and refused new orders. The Spa agree-

CHART No.20 - FRENCH COAL PRODUCTION



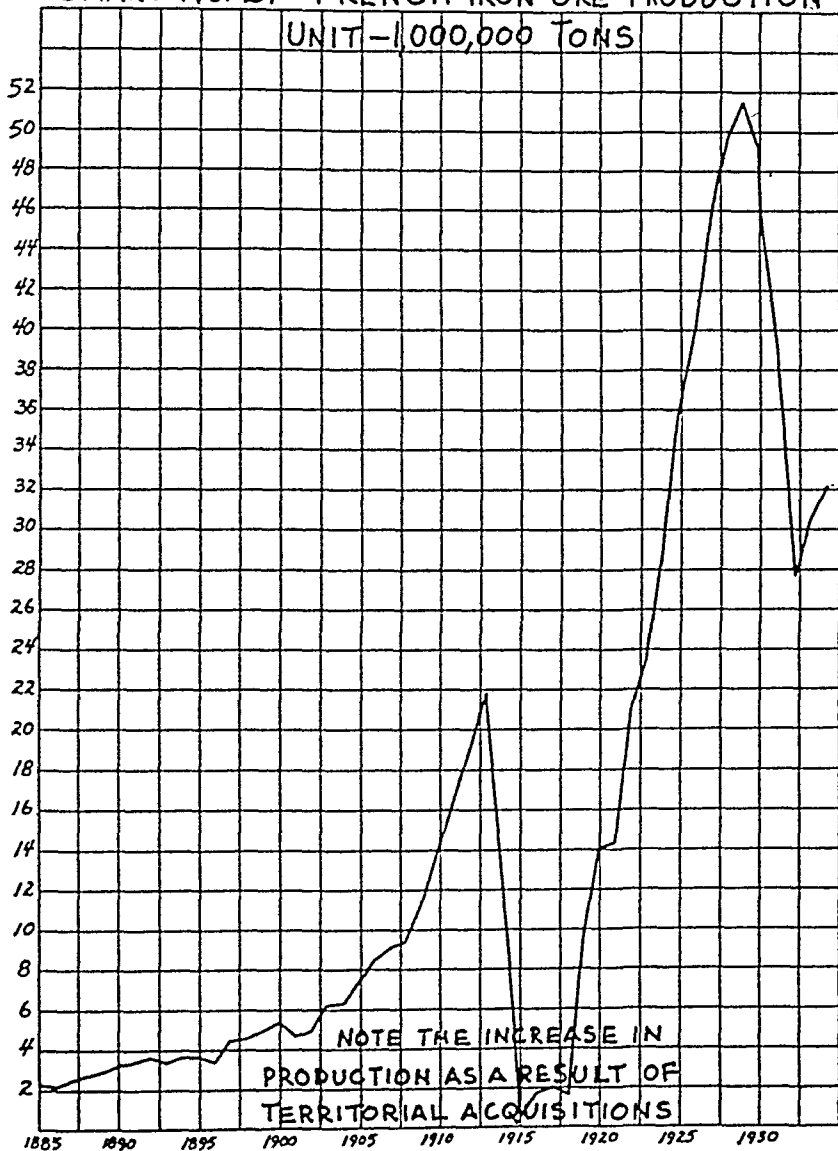
ment supplied larger deliveries of German coal. France needed the Ruhr coal. According to the peace agreement France was to exchange 1.25 tons of Lorraine ore for one ton of German coke. France broke the agreement, and Germany obtained her ore elsewhere.³ In 1930 France withdrew from both the Saar and the Ruhr fields.

During the five years following the outbreak of the war France virtually doubled her hydro-electric power. In recent

³ See the *Living Age*, August 18, 1923, Vol 318, pp 295-299.

years, or up to the World Depression, coal output has been about a fifth more than it was in 1913 and iron ore has been somewhat more than it was in 1913, the iron ore capacity virtually being doubled by the acquisition of Alsace-Lorraine.

CHART No. 21 - FRENCH IRON ORE PRODUCTION



SOURCE - THE STATESMAN'S YEARBOOK AND COMMERCE YEARBOOK.

War, on the whole, thus led to an increase in France's industrial output, which roughly weighted according to the importance of the various articles, revealed an index of 105 in 1924 in comparison with 100 for 1913.⁴

The individual who buys French manufactures naturally pays for the skill of workmanship, the cost of the raw material used being relatively a small part. In the making of such products as fabrics and laces, millinery, ladies' gowns, tapestries, toilet articles, jewelry, porcelain, cut-glass, hand-tooled automobiles, and numerous other articles the French have no superior. For many decades France was the unquestioned leader in silk manufactures. France also leads the world in the manufacture of fine woollens, and has about one-eighth of the world's total wool-manufacturing capacity. The chief wool-manufacturing region extends from the coal fields of the north down into Alsace. France likewise is unsurpassed in the manufacture of high-grade cotton, the three chief centers being Rouen in Normandy, Lille near the coal fields, and Mulhausen in the Alsace-Lorraine region. The reannexation of that territory, of course, greatly stimulated the textile industries, for it increased the cotton-spinning capacity more than a fourth and the weaving capacity more than a third and doubled the dyeing, bleaching, and print goods capacity.

Germany.—The overthrow of the gild system came in Prussia when the essentials of the French license system were introduced by instructions in 1808, edict in 1810, and law in 1811. In non-Prussian parts of Germany the gilds likewise tended to disappear. In 1845 Prussia passed a law which was intended to keep the presumed advantages of the gild system and at the same time to give a considerable measure of industrial freedom. A panic in 1846-1847 and a revolution in 1848 checked the influence of the law and led to a demand in 1848 for the virtual return of the old gild system. Although the demand was granted, after 1860 the liberalizing movement once more began, and in 1869 the North German Confederation legalized a state of industrial liberty which had existed for some time.

John Quincy Adams, our minister to Berlin, gives numerous

⁴ See the *Quarterly Review*, April, 1927, Vol. 248, p. 375.

comments on manufactures at the beginning of the nineteenth century. In reference to Grunberg he says:

This town contains about seven thousand inhabitants, who derive their subsistence from two sources, from the manufacturing of broadcloth, and from the cultivation of the vine. The first is carried on in a manner which it should seem might serve as an example for our own country. Here is no large capitalist at the head of an extensive manufacture, and employing, at wages which will scarcely keep soul and body together, a large number of workmen, whose labours only contribute to accumulate his enormous wealth. But here are between six and seven hundred looms, which furnish comfortable subsistence to as many families. . .⁵

Adams, however, was too optimistic in his theory as the following comment concerning another town, Gottesberg, reveals:

... The poor people who are thus continually toiling, can scarcely earn a sufficiency for their bare subsistence, and are subjected to various heavy oppressions. The manufactories of linens, in particular, which raise large fortunes to the merchants who export them from the cities, scarcely give bread to the peasants who do all the valuable part of the work...⁶

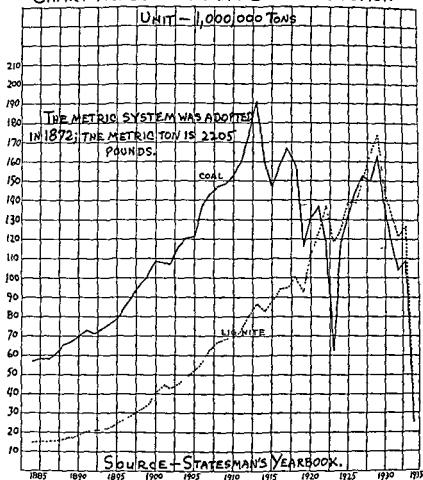
Although the real development of Germany came after the formation of the empire in 1871, some progress was made prior to that time. That progress may be measured roughly by the development of the textiles and iron. In 1840 the consumption of raw cotton was about twenty million pounds, but shortly before the Franco-Prussian War it passed the billion mark. Between 1852 and 1867 cotton spindles more than doubled, and woollens, linens, and silks showed a somewhat similar increase. In 1850 the per capita consumption of pig iron was less than eleven kilograms, or little more than a third that of the United States and only an eighth that of England, but twenty years later the per capita consumption was almost four times as great and the proportion was three-fourths that of the United States and nearly a fourth that of England. Coke-smelting started about 1840, but in Silesia in 1846 only nine of the three hundred or more furnaces used coke. Improvements came rapidly after 1850, the output of coke-smelting increased fivefold between 1861 and 1873.

5 *Letters on Silesia written during a Tour through that Country in the Years 1800 and 1801* (really only six weeks in 1800) (Budd, London, 1804) pp. 15-17.

6 *Ibid.*, pp. 156, 157.

One of the big factors in Germany's industrial progress has been the development of a thorough business organization. In 1907, 1423 industrial establishments employing more than five hundred persons each had an average of 1080. Two years later 229 industrial, banking, and transportation com-

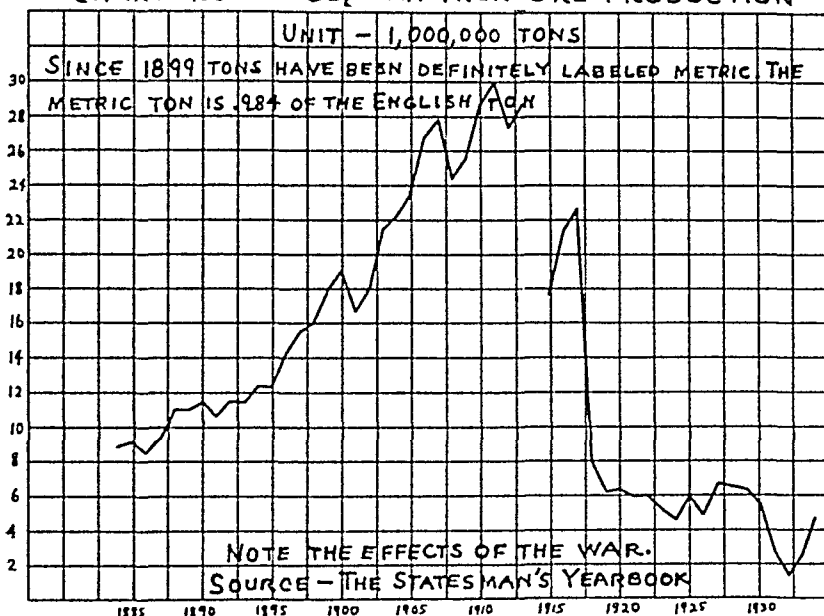
CHART NO. 22 - GERMAN COAL PRODUCTION



panies had a banking capital of more than ten billion marks. The Krupp establishment at Essen with a capital of 180,000,000 marks headed the list. It, like many others, had been built by the absorption of small industries. In 1882, 157,000 separate undertakings in the weaving industry were carried

on by single individuals, but in 1907 the number was only a fifth as great. Still another phase of organization was the grouping of similar establishments into interest conventions, cartels, and syndicates. The interest convention, illustrated in the chemical industries, was simply an arrangement between rival firms concerning prices and markets and sometimes for the pooling of profits. The cartel and the syndicate both are combinations of producers of like goods with the object of eliminating or controlling competition and of insur-

CHART No. 23—GERMAN IRON ORE PRODUCTION

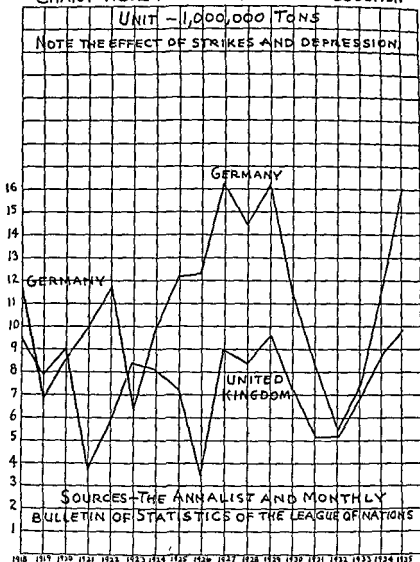


ing cooperation. The cartel is usually an oral and voluntary agreement concerning price control, but it is likely to lead to the syndicate which is a written agreement, enforced by penalties, for the regulation of quantity and quality produced, prices, and sales. In 1914 the number of cartels and syndicates was perhaps 385, iron and coal constituting less than a fourth of that number, and yet according to Professor W. H. Dawson outweighing "all the rest put together" in capital and influence.

Although copper, zinc, lead, nickel, tin, potash, and rock

salt are numbered among the minerals, coal and iron are the most important. At the beginning of the twentieth century coal production was less than 110,000,000 tons, but in 1911 it

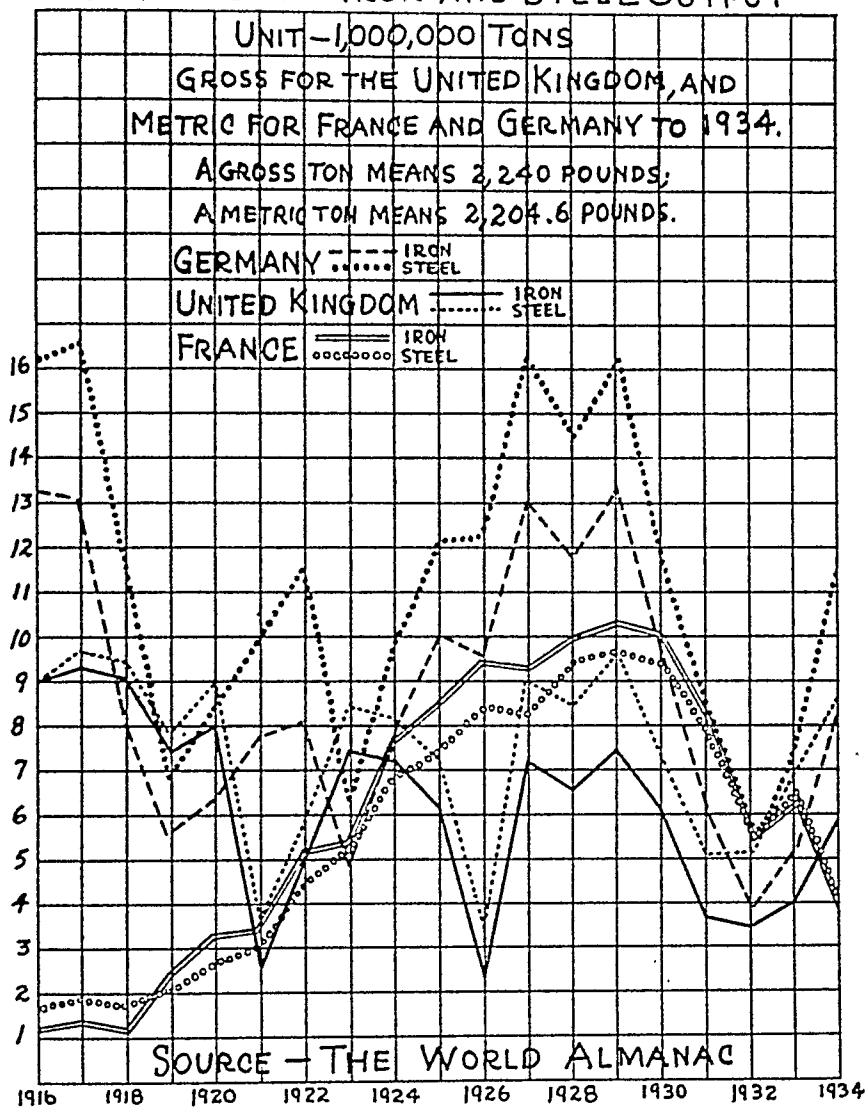
CHART NO. 24 - RECENT STEEL PRODUCTION



was more than twice as much, the country being surpassed only by the United States and England. Until 1850 the iron industry was retarded by the charges of transportation, the

large proportion of phosphorus in the ore, and by English competition. As late as 1872 the production was less than two million tons, but in 1910 it was fifteen and a half million.

CHART No. 25—IRON AND STEEL OUTPUT



That progress aroused the alarm of the British whose foreign sales were threatened.⁷

⁷ See "The German Peril" in *Blackwood's Edinburgh Magazine*, January, 1898, Vol. 163, p. 111.

The machine trades were widely diffused in 1914, but were most strongly represented in the Rhineland-Westphalia district. Localization of manufactures is often found, Solingen being noted for its cutlery, Chemnitz for lace-working and hosiery machinery, Leipzig for printing machinery, Berlin for turbines and electrical machinery, Dresden for chocolate-making machinery, Magdeburg for beet-sugar machinery, Magdeburg, Mannheim, and Leipzig for agricultural supplies, and Hamburg, Bremen, Danzig, Stettin, and Elbing for ship construction. Fleeing French Huguenot jewelers long ago settled in Pforzheim and the industry has had a firm footing there for a century and a half. In 1907 Pforzheim had 1,078 jewelry factories and approximately thirty thousand workers, a number which almost equaled the number in the entire United States. The town supported special schools to train its workers. Hanau also enjoys world-wide fame for its jewelry and jewelers' novelties, its chief advantage being cheap but highly skilled labor.

Germany is noted especially for electrical and chemical industries due primarily to her superior technical education. In 1882 workers employed in the electrical industries were too few to be listed separately, but in 1895 they numbered fifteen thousand and in 1910 they numbered more than six times as many. In the chemical industries Germany's supremacy was unquestioned, four-fifths of the world's dyestuffs being produced by her in 1900. Dr. Bayer in 1897, to note one example, discovered a process of producing artificial indigo. In 1914 Germany had virtually a monopoly of aniline dyes. They were produced from coal tar obtained in the process of coke-making and now number more than ninety thousand colors, tints, and shades. She also led in numerous other chemical industries including artificial silk, soaps, fertilizers, glass, explosives, medicines, drugs, distilling, brewing, and tanning.

In 1911 the total number of cotton spindles in Germany was less than a fifth of the number in Great Britain and little more than a third of the number in the United States. Little of the raw material used in the textile industry is produced in Germany. Cotton comes chiefly from the United States, silk travels from China and Japan, wool comes from

Australia and Argentina, flax enters from Russia, and other fibers come from numerous regions.

A few other manufactures may be mentioned. Germany led the world in the production of beet sugar in 1914. Bavaria had world-famous breweries using the hops and barley of the region, a score of the breweries being located at Munich alone. In virtually every one of the twenty-two university cities were factories producing delicate apparatus, maps, scientific and optical instruments, and other articles requiring accuracy, scientific ability, and training. The famous Zeiss factory of Jena which produces the glass almost universally used in microscopes and telescopes is due to the joint labors of Professor Abbe and Carl Zeiss, a local optician and glassmaker. The toys for which Germany long has been famous are made chiefly in Bavaria and the Black Forest, where families by the thousand utilize their winter evenings in making dolls, clocks, and Christmas toys.

War wrecked German industry. Export trade decreased, imports fell rapidly, the pre-war surplus of coal turned into a deficit, and railway transportation deteriorated. Textile substitutes, like nettle and wool fiber, came into use. At the Leipzig Fairs in 1918 the hotel keepers even requested the guests to bring towels and bed linen with them. By the time the war closed there were more than seven thousand substitutes in use for food and clothing. Two of the most important German industries, chemical and steel, nevertheless, maintained a fairly prosperous condition throughout the war. The war expanded tremendously the demand for explosives. Larger profits than ever came to steel. The metal supply was, however, supplemented by molten-down door knobs and church bells.

The war seemed to fan an unusual tendency toward decentralization, but the government stopped it, compelling, for example, in 1915 the renewal of the Rhenish-Westphalian Coal Syndicate. A somewhat similar course was taken in the steel and cement manufactures. On the other hand, there were voluntary consolidations in the dye and electrical industries, probably due to the dread of post-war competition and the dearth of raw materials. Coal and iron interests, too,

were linked with shipping industries. Banking consolidations were less numerous than they were in England, but they were revealed in the control of provincial banks by the large city houses. When the war closed export cartels were being perfected under government sanction and after the revolution demands for the nationalization of such industries as coal and electrical power were pressed.

The war deprived Germany of 72,800 out of 540,850 square kilometers of territory, 7,130,000 of her 65,000,000 inhabitants, of from 17 to 72 per cent of her raw materials, and of a large number of factories. She was required to deliver 45,000,000 tons of coal each year (soon reduced to 20,000,000) to France, Belgium, and Italy, also to relinquish a large part of her transportation facilities. She faced the ruin of her potash and chemical industries and her propaganda and advertising houses with their world-wide connections.

In 1919 an act was passed authorizing the seizure of industries capable of socialization, notably natural resources, the control of the manufacture and marketing of necessities, and diluted socialization for the electrical, potash and coal industries. Large consortiums were formed, Hugo Stinnes' being the first and the most celebrated. Because concentration was the keynote, mergers came. Most of the big consortiums collapsed in 1925 and 1926. The cartel for the regulation of industry and the elimination of competition came back, new fusions and combinations rivalling those of the United States being formed. By rationalization Germany increased her production nearly one-third. She reconquered foreign markets and built up her export trade. In nearly all cases before the Great Depression production and sales figures had equaled or surpassed the 1913 statistics.

Austria-Hungary.—Although Austria had liberalized trade to some extent, even after 1850 restrictions on industry continued. Thus, a public license must be obtained by a man whose trade required the use of a machine. A man, moreover, was limited to one trade, a cabinet maker even being forbidden to upholster the furniture which he had made and a baker being forbidden to make confectionery. After 1860

most of these barriers were swept away and more modern methods of production were introduced.

In addition to the removal of restrictions as a factor encouraging industrial growth we need to note the abundance of raw materials, the dense population, the cheap labor, and the markets of the undeveloped Balkan states. Coal, wood, and water supplied power. Mineral products included coal, iron, lead, mercury, petroleum, salt, and silver.

One of the most important manufacturing groups was textiles. The industry in its various branches,—cotton, woolen, linen, silk, flax, and hemp,—was concentrated largely in Bohemia, Moravia, Silesia, and Lower Austria. The neighborhood of Reichenberg was especially important in textile manufactures. There local supplies of flax and wool with water power and a damp climate, skilled labor, and the proximity of coal afforded encouragement. Linen goods and the other textiles to a lesser extent were woven in the houses located on the banks of the swiftly-flowing mountain streams.

A second important group of manufactures was the metallurgic group. Iron ore of good quality was produced in considerable quantity each year. It supported numerous small wares, machinery and locomotives, cars, and boats. Copper, gold, lead, silver, and tin manufactures were of some value. Glass manufacture, largely concentrated in Bohemia, was one of the oldest industries. Earthenware products, especially the porcelain of Carlsbad and the Eger district of Bohemia, enjoyed a high reputation.

A third group of manufactures consisted of foods, drinks, and tobacco. The main food products were flour and sugar. Austria long was noted for her high-grade beer, and at the beginning of the present century she had more than thirteen hundred breweries which produced almost one-half billion gallons of beer each year. Schwechat, near Vienna, and Pilsen and Budweiss, in Bohemia, were especially famous for their liquid refreshments. Nearly thirteen hundred distilleries produced more than thirty million gallons of spirits yearly. The government monopolized the growth and production of tobacco, its thirty or more factories giving employment to from forty to fifty thousand workers.

Our fourth group of manufactures we shall label miscellaneous. The leather industry was extended widely, Vienna and Prague being famed for their boots, shoes, and gloves. The manufacture of wooden articles, especially the ornamental furniture of Vienna and other large cities, was likewise important. Paper manufacture also had developed to a considerable extent. In Bohemia and Vienna, moreover, chemical manufactures and in Galicia petroleum products assumed considerable proportions prior to the outbreak of the World War. Button-making, engraving, lithographing, map-making, and printing, particularly in Vienna, also are deserving of mention.

In Hungary, the agricultural part of the empire, efforts to promote manufactures date only from 1867. The state has promoted actively the growth by exempting manufacturing establishments from taxation for a number of years, by reducing freight rates on manufactured goods, by the granting of government contracts, loans, and subsidies, and by the establishment of industrial schools to train engineers and skilled workers. Especially has encouragement been extended to the textiles, to machinery needed to exploit the resources of the country, and to all industries concerned with the production of articles needed by the most important Hungarian industries. Hungarian manufactures included textiles, metallurgical products, machinery, leather, paper, petroleum, tobacco, wood, and especially foodstuffs. Flour-milling was the leading industry. Steam-mills numbered 150 in 1867 but had increased to 1845 by 1905. More than three million tons of wheat flour were then produced yearly. Budapest, the only industrial city of importance, was the Minneapolis of the region.

Children of the Partition.—To many hard-working Austrians the chance of economic prosperity seems as remote as the prospect of Nora's marriage appeared to her, for she would not marry Mike when he was drunk and he would not marry her when he was sober. In "Austria's Present Plight and Dismal Future," Dr. A. E. Taylor said: "Now what are these people to do? Enter upon agriculture? Where, within the borders of Austria? Enter upon manufacturing? In what

factories, with what materials and with whose coal, within the borders of Austria?"⁸

For several years Austria received help from the exportation of merchandise and antiques, American relief, the Catholic Church, Austrians in other countries, purchase of Austrian industries by foreigners, ownership by Austrians of paying industries in Czechoslovakia, Hungary, and elsewhere, and paper money. Yet injury came to Austrian industries through cheap railroad fares to Germany.⁹ Austria had some minerals such as graphite, salt, magnesite, and iron. Deposits of iron are especially numerous, but Austria has no coal with which to smelt that ore and wood can scarcely take the place of coal. The exploitation of water power, consequently, has proceeded rapidly. The leading manufactures are electrical apparatus, iron, leather, metal-working, motor vehicles, paper-making, textiles, and wood-working.

Hungary is primarily an agricultural country. It did not recover completely from the ravages of the World War before it, like all other European countries, fell into the throes of the World Depression. In normal times its industrial products range from one-third to one-half billion dollars in value. Food products and tobacco normally have a value equal to that of all other manufactures. Iron, metals, and machinery, followed by textiles and chemicals, are likewise important. Sugar and textiles have made some progress since the war.

For the real industrial section of the old Austria-Hungary we turn to Czechoslovakia. The Czechs have made more progress in manufacturing than have any other Slavic peoples. Bohemia was a veritable hive of industry. Within the limits of the present Czechoslovakia in ascending order were located from three-fifths to nineteen-twentieths of the following industries of the old empire: iron, cotton mills, coal, glass factories, hemp mills, and sugar mills. The country has also three-sevenths of the paper mills of the old empire. This concentration has been due, in the main, to three factors: the high-grade Czech and German people who occupied the re-

⁸ *Review of Reviews*, December, 1919, Vol. 60, p. 581.

⁹ See article by W. C. Gregg in the *Outlook*, October 11, 1922, Vol. 132, pp. 233-235.

gion, proximity to the highly industrialized part of Germany, and the possession of coal and iron.

The manufactures fall under four heads: foodstuffs, mineral and allied products, textiles, and leather. As exemplifying the progressive spirit of the country we may turn to the shoe industry. In the exportation of shoes Czechoslovakia has at times led the world and American producers have petitioned Congress vigorously for increased protection from the foreign product. The rise of the shoe industry is connected closely with the fortunes of "Bata—The Shoemaker Who Stitched Mass Production Onto the Uppers of Feudalism." In 1904, Bata and a group of workmen came to America, where they obtained various jobs for a year or so. They returned home by way of England and Germany. Bata established and developed a huge shoe factory which was taken over by Austria during the war. After that struggle was over Bata reduced prices half and cut wages. But his workmen, increased to about twelve thousand in 1930, suffered little, for he bought the necessities of life and sold them to his workers virtually at cost, developing a department store and eliminating the middleman. Each worker is required to perform a specified task in Bata's mass production schemes. A conveyor system, a horizontal belt or platform continually in motion and carrying open baskets or cages in which are ten or twelve pairs of shoes, is perhaps the chief feature of the factory. Bata knows the details and he makes the men work, actually jailing some for being late to work and wringing tears from a banker for overworking the men. Even when Bata was not serving as mayor of Zlin, he ruled a feudal community in a paternalistic but albeit a successful and economically helpful way.¹⁰

To our four chief groups we may add another group which we shall label miscellaneous. The forests provide materials for the cellulose, paper, and timber industries. A large part of the paper output is exported. Bags, cigarette holders, and the like utilize the surplus output. Barrels, basketware, brushes, building materials, buttons, frames, furniture, musi-

¹⁰ See the Survey, March 1, 1930, Vol. 63, pp. 823-826 and 673-677 for this interesting story.

cal instruments, pit props, pipes, walking sticks, and whips are some of the timber products. Among the products of the chemical industry are blacking, candles, explosives, glue, ink, manures, oils, soap, and varnish. The lead pencil industry depends upon the large supply of high-grade graphite.

Russia.—Primitive methods and scant labor held production low. Although in the Polish districts some progress was made with private capital and the newer kinds of machinery, there was little in the way of improvement until the serfs were emancipated. That event, through the loss of one-third of the laborers, brought temporary decline, especially in the iron and cotton industries. Recovery was, nevertheless, rapid, technical improvements and a high protective tariff stimulating a development which even the depressions of 1880 and 1889 could not entirely stop.

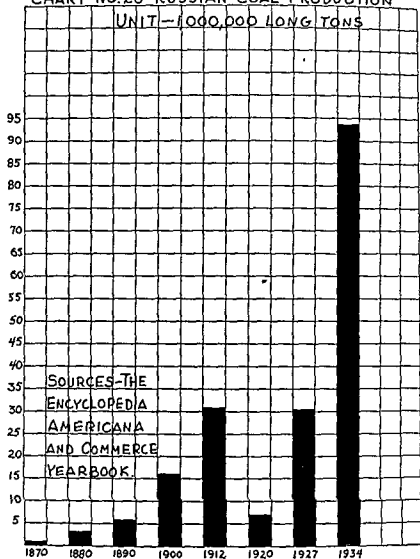
When Count Sergius Witte became minister of finance and commerce in 1893, Russian manufactures began a new era of development. Capital was imported, mines were opened, railways were constructed, and the factory system was extended. A depression set in about 1899, but expansion commenced again about 1905. The most important manufactures are the textiles, which center in Moscow and Vladimir. Among the other manufactures are iron, steel, sugar, paper, chemicals, leather goods, hats, glassware, and china. In 1913 Russia produced nineteen-twentieths of the world's platinum, half of the world's manganese ore, and over a sixth of the world's petroleum. Russia has several beds of rich coal, especially in the south, but they have been worked little. About 1900 she led the world in the production of petroleum. A pipe line 560 miles long connects the Baku field with Batum on the Black Sea. Manganese, necessary for steel production, about fourteen pounds being used to the ton of steel, is an important product. Platinum, worth several times as much per ounce as gold, is found in the Ural region, being obtained by washing much as is gold. It is used in some chemical and metal industries. Russia has some gold and silver, chiefly the former, but it comes largely from Siberia.

Russia seems to have changed from an agricultural region to an agricultural-industrial region. Among the reasons for

such a change are: freeing of the serfs, increase of labor through modification of the taxing policy which had tended to hold the laborers in one place, importation of foreign capital

CHART NO.26-RUSSIAN COAL PRODUCTION

UNIT-1000,000 LONG TONS



especially after French and Belgian losses in the United States in 1873 and 1893, the growth of railways, the increase of popular education, and the use of high protective tariffs.

The war shut off Russian exports and by stopping essential imports injured industry. By the close of 1917 industrial disorganization was virtually complete, production until 1921 being downward. Beginning in 1918 the Bolshevik government had nationalized all industrial and commercial enterprises. But that policy prevented the necessary western aid and was partially responsible for the new economic policy started in 1921. Small industries were returned to private traders, those of medium size were nationalized partially and leased, and the large industries were retained by the state. The government reduced profits, interest, and rent to the vanishing point. Difficult indeed then was the problem of securing efficient administrators. The manager of a factory is expected to furnish a specified product of a specified quality at a specified time. His reward is not material things; about \$116 a month with the best available living quarters, traveling expenses, and a few other favors, is the maximum allowance. His reward is power—the possibility of promotion—and work for his Party. Arduous indeed is that work. Drains on his time and energy are constant. Committee meetings seem endless, and in Russia, if anywhere, those meetings take minutes and waste hours. Even if punishment were not so severe, long imprisonment or shooting, he would be too busy for much graft. At stated times, too, he must defend himself against anyone who desires to make accusations.

The increase in industrial output in recent years has been due to state-planning in large part. With the inauguration of the New Economic Policy in 1921 the factories were distributed among the Trusts organized under the Supreme Economic Council. Later the Trusts often grouped themselves into the Syndicates. Industries fall under three heads—those of Union importance under the Supreme Economic Council, those of Republican significance under the Supreme Economic Council of one of the six Union Republics, and those of local importance under an Economic Council for the local division. The Soviet authorities carefully planned for a systematic increase in production.¹¹

¹¹ See Hoover, C. B. *The Economic Life of Soviet Russia* (The Macmillan Company, New York, 1931) pp. 1-13.

The Five-Year Plan, accelerated in 1930, called for a 133 per cent increase in industry. The achievements of Russia under that plan, shortened to four years and three months in 1930, though noteworthy for industry, can not, at least at the present time, be fairly determined. Even though the actual control figures were not met, every year of the Five-Year Plan did show a substantial gain over the previous year. Some industries increased beyond the dreams of the leaders. Yet for that increase a heavy price was paid. Seven-eighths of all capital investment was allotted to heavy industries such as steel mills, power plants, and automobile and tractor factories whose output was beyond the reach of the struggling peasants. In starting the second Five-Year Plan the authorities seem to have adopted the slogan, "Slow Down." In the first year of the Second Five-Year Plan serious obstacles appeared. Food shortage during the first half of that year and the backwardness of such industries as coal, ferrous metals, and transportation lowered still more the estimates. In place of one hundred billion kilowatt-hours of electric energy by the end of 1937 Stalin reduced the amount to thirty-eight billion, in place of 250,000,000 tons of coal he visualized only 152,000,000, in place of twenty-two millions tons of iron he scaled the amount to eighteen million, and in place of thirty thousand kilometers of railroads he reduced the trackage to 10,600. Total production is to be increased 2.4 times, light industry is to be trebled, farming is to be completely collectivized, and living standards must be doubled or trebled over the low standards of 1932.¹²

Italy.—Many of the old manufactures continued. Mines virtually trebled between 1881 and 1902. Sicily is famous for sulphur, Sardinia for lead and zinc, Elba for iron, and Tuscany for small amounts of quicksilver and tin. Mercury, manganese, copper, antimony, rock salt, and building stone also are found. Since 1880, despite the fact that the manufacture of steel rails did not begin until 1886 and that of tin until about six years later, a marked industrial advance has occurred. Locomotives, electrical tramcars, railway car-

¹² See the *Literary Digest*, February 10, 1934, Vol. 117, No. 6, p. 3. Other nations are imitating Russia's state-planning. For example, Turkey has announced a five-year plan and Italy has formulated a sixty-year plan.

riages, and machinery of all kinds are now made, especially in the vicinity of Naples. Textiles, too, have developed rapidly, hand looms and small spinning plants giving way, especially in the silk industry, to large establishments with power looms. In the last quarter of the nineteenth century the production of raw silk trebled. In the last fifteen years of that century, despite the fall in prices, the value of cotton manufactures almost doubled. Wool, flax, and jute industries have also made marked progress. Since 1887, in fact, the jute industry, which is concentrated in large factories, has supplied the home market and has produced a surplus for export. Such feminine industries as lace-making and linen-weaving likewise are being fostered.

The value of the chemical industries increased two and a half-fold from 1893 to 1902. Among them are sulphuric acid, sulphate of copper, chemical manures, hyperphosphates, and explosives. Closely related industries are quinine, soap, candle, glue, perfume, and India rubber manufactures.

Numerous other manufactures, among them match-making, paper-making, furniture-making, and alcohol, may be mentioned. Straw-plaiting for hat-making is a characteristic Italian industry, plaiting being done by the country women, but the hats being made largely in factories. Tobacco is a government monopoly of some importance. The Venetian glass, too, is still famous. Italy once led the world in ceramic arts, and despite the fact that many cities have declined in importance, the ceramic arts are still commercially successful, the making of tiles and the common wares being distributed well. Jewelry is likewise noteworthy, Rome being especially noted for its trinkets of coral, glass, and lava. The copying of the paintings of the old masters is also of importance in some of the larger cities, and mosaic production still ranks high. The works of the Vatican are said to contain more than seventeen thousand tints, and Rome has still other establishments. Florentine mosaics, composed of larger pieces than the Roman, are better known abroad than are the Roman, and Venetian mosaics are famous for their bold coloring.

Although during the war the non-war industries suffered

a depression, both the metallurgical and chemical industries enjoyed a boom. The war forced a reorganization of Italian industry by elimination of German capital. From 1913 to 1925 the increase in hydro-electric power was equivalent to the saving of 6,200,000 tons of coal annually. In 1930, 391 power stations supplied eighty per cent of the power. By 1927 virtually all major industries had increased their production, pig iron, steel, textiles, and automobiles surpassing the war records. Rayon production, to note the most startling growth, increased from a third of a million pounds to more than sixty-six million pounds in 1930. The economic census taken in October, 1927, listed 731,447 industrial establishments employing 3,939,960 persons. On March 23, 1936, Mussolini, presumably to take the profits from war, placed the large private industries under state control.

Switzerland.—William Coxe at the close of the eighteenth century described for Appenzell conditions which persisted in the nineteenth century:

... Their manufactures are coarse callicots and muslins in great quantities, which are entirely made in the houses of the inhabitants. The cotton is spun with the common wheel. The web is bleached at home and afterwards sent to be printed in the neighborhood of Neuchatel. The greatest bleachery I saw in the Alps was near Appenzel, which extended over three or four acres of ground. Part of the river Sittler is diverted to turn the mill which is of the simplest construction. A large wheel on the outside works a long cylinder within; on which are fixed a number of cogs to raise the hammers which beat the webs. In the same place are the boilers and other conveniences for the business.¹³

Of course, in the opening decades of the nineteenth century the restrictive tariffs of neighboring states, the lack of political unity, and the dues and tolls levied on trade hindered development. But most of these restrictions were swept away after the establishment of a federal republic in 1818. No country so destitute of coal and iron and so dependent on imported raw materials over foreign railroads as is Switzerland has such highly developed manufactures. Everything considered the Swiss deserve the highest credit for their success, which has been primarily due to mechanical ability, ex-

¹³ *Travels in Switzerland in a Series of Letters to William Melmoth*, Vol. 1, pp. 23.

cellent technical and vocational schools, and ability and willingness to exist on a small income. Their manufactures are highly specialized, power and raw material being minor costs in comparison with human labor. Watches, clocks, musical instruments, jewelry, optical goods, scientific apparatus, and light machinery are noteworthy. Basel and Zurich are especially famed for silk. St. Gall produces a large part of the cotton, lace, and embroideries.

The Backward Regions of Southern Europe.—The Balkan countries have suffered under serious handicaps and are even yet the most backward part of Europe. One reason is found in the ease of Asiatic access. From southern Russia and western Asia came such invaders as Slavs, Bulgarians, and Turks who even yet retard the economic development. The mountains make transportation and communication difficult, thus retarding the ingress of ideas, and, moreover, fail to supply needed minerals. The people are poor, ignorant, and warlike, without the means, the ability, or the inclination to develop industry on a large scale. Governments, however, are showering favors on industry through protective tariffs, free or low transportation of raw materials, remission of import duties, loans, exemption from road taxes, and the like. The chief manufactures are connected with agriculture and the forests.

The manufactures of Servia and Montenegro were limited largely to bare necessities. Yugoslavia has flour-milling, meat-packing, and wood industries, but has also textile, leather, and more metal manufactures than usual for a Balkan state. Albania also has some minerals and forests, but in general each household supplies its food, flax, leather, and wool. Rumania has manufactures of the type just noted, sufficient coal and iron for local needs, and numerous other minerals in small amounts, including two or three per cent of the world's petroleum production. Foodstuffs and textiles constitute approximately half of all manufacturing values. Large-scale manufactures in Bulgaria, as elsewhere in eastern and southern Europe, have been retarded by the lack of capital and by foreign competition. Homespun cloth of pure wool and braided embroidery are noteworthy, Slivan and Gabrovo are

famous textile towns. The making of attar of roses is still an important industry. Only since 1877 has Greece made much of an effort to husband her forest resources. Many minerals are found, but usually in small quantities. Since 1897 some development through the influx of foreign capital, notably in the marble quarries, has occurred. Coal is too limited to promote the industrial life, but of considerable significance is the improvement in methods and machinery, particularly the extension of electric power facilities. Turkish industrial establishments, like those of most Balkan states, average only four or five workers to the plant. British capital has aided in the development of copper, lead, and silver mines. Tanning and the manufacture of carpets, muslin, silk, velvet, and ornamental weapons long have been famous.

At the opposite end of the Mediterranean, Portugal and Spain are also backward. Portugal has a wide variety of minerals, coal probably being worth more than all others, but they have been used little. The Portuguese placed great faith in protection, monopolies, and restrictions, but not until near the close of the nineteenth century did protective duties seem to have much effect. After 1892 cotton spinning and weaving were encouraged by high duties. The principal manufactures are decorative tile, china-ware, embroidery, pillow-lace making, and the various textiles, cotton being the most important.

Most of the Spanish people are backward and the majority of the leaders have been incompetent and corrupt. The investor and the worker have suffered from heavy taxes. About half of the industrial workers are engaged in textile manufactures. At Barcelona and other northern towns, in fact, an industrial revolution, especially in cottons, long has been manifest. Metals, construction, wood and cork, foodstuffs, and hides and skins follow textiles in order. The number of industrial employees is now not far from a third of a million, one-third being in the mines. The iron and steel industry has shown considerable development since 1914. Spain now produces about as much ore as does Luxemburg and a fourth to a third as much coal as does Belgium. Among her other minerals are copper, lead, manganese, mercury, phosphorus, sulphur, and tin. The dependence upon coal is being lessened

by the development of water power sites in which Spain is potentially rich.

Northwestern Europe.—In this topic brief reference will be made to the manufactures of four countries. One of these countries is Holland, primarily agricultural and commercial. A second is Denmark, one of the most developed agricultural countries in the world. A third is Norway, primarily a fishing and trading nation. The fourth is Sweden, a century ago an agricultural nation, but now industrial.

A country which lacks good coal, iron, and other metals must necessarily labor under a heavy handicap in industrial life. In some special manufactures, however, the Dutch have made notable progress. One of these groups is composed of pottery, brick, tile, and other clay products. The blue pottery of Delft has enjoyed a world-wide reputation for centuries. Since the time it was a banking and jewelry center Amsterdam has been famous as a diamond-cutting center. Dutch cheese, butter, and condensed and powdered milk enjoy a high reputation. Closely connected with the dairy industry is the manufacture of margarine, a butter substitute made from the fats and oils of animal and vegetable products. The products of the Dutch colonies, of course, show their influence on the manufactures of the home country. Chocolate, liquors, oils, rice, soap, sugar, and tobacco are prepared in large quantities. Probably the most important of the manufacturing groups, however, is the textiles. Cottons, linens, some silks, and woolens are produced, more than six hundred mills, some large and some small, affording employment to more than fifty thousand people.

Although Denmark's mineral products are among the poorest in Europe, in the island of Bornholm there are quarries of free stone and marble, the country has fine clays, and hydro-electric power can be transmitted from Norway and Sweden by marine cables. Perhaps the most notable manufacture is porcelain. Copenhagen potters at first imitated the Dresden china of Meissen, but they soon began to produce beautiful work of original design. Cement also is a growing manufacture. The Danish factories in general supply local needs. The largest establishments produce engines and iron ships.

Textile manufactures, notably cottons, woolens, and the Zealand linens, also are important. Breweries, distilleries, paper mills, and sugar refineries alike make their contributions to Danish industrial life. The most characteristic manufactured products, of course, relate to the farm industries,—butter, cheese, bacon, etc.,—and they have been noted under agriculture.

Although Norway has the usual manufactures,—clothing, food, machinery, ships, and the like,—she has shown little inclination for an industrial life.¹⁴ One reason appears in her paucity of mineral wealth. Norway must look to her great potential water power for industrial development. More than six million horse power are available for commercial use, but only a third of that amount has actually been employed. Yet that is enough to give Norway world leadership on a per capita basis. Much of this power is changed into electricity and utilized in the smelting of ores and the manufacture of chemicals. Especially significant is the extraction of nitrogen from the air by means of the electric current. The production of wood pulp and paper and the different kinds of lumber are the two most important mill industries.

Yet such industries are more important in Sweden. That country has 250 or more pulp and paper mills, raw materials, nearness to the sea, water power and the proximity of European markets stimulating the industry. Tanbark and charcoal are other forest products. The match industry is an important one, a single Swedish factory producing forty thousand boxes of matches each hour. Probably no other country aside from Finland is more dependent upon forest products than Sweden. At one time Sweden led Europe in iron production, iron ores of high quality having been smelted with charcoal for centuries. The famous cutlery of Sheffield, England, is based upon Swedish ore. Probably nine-tenths of the known high-grade ore of Europe is in Sweden beyond the Arctic Circle and the balance is in Russia. Sweden has made rapid progress in general manufacturing in the last quarter of a century in such products as cottons, woolens, shoes, to-

¹⁴ See the *National Geographic Magazine*, June, 1924, Vol. 45, pp. 656, 657, for a tribute to Norwegian ingenuity by Maurice F. Egan.

bacco, chemicals, flour, beet sugar, butter, and other products. From 1914 to 1918 in Sweden, and also in the other Scandinavian countries, conditions were fairly prosperous. Capital was accumulated rapidly, small enterprises were absorbed by large ones, and industrial workers increased from 360,000 in 1913 to 417,000 in 1920. Depression came temporarily in 1922 and fluctuations, of course, have been common. On March 12, 1932, Ivar Kreuger, the Swedish industrial leader, committed suicide. He had personal debts of about \$93,500,-000 in addition to direct liabilities of \$74,800,000. His industries, nevertheless, employed only 2.5 per cent of the Swedish industrial workers and the Swedish government held less than \$12,000,000 in Kreuger stocks and bonds, the income from which was approximately only two-thirds of one per cent of the national income.¹⁵

East Baltic Countries and Poland.—Finland, Estonia, Latvia, and Lithuania, the East Baltic countries, are limited in mineral resources and in manufactures. The greatest resource of the first is lumber. Normally nine-tenths of the surplus products of Finland, measured in dollars, consist of lumber, timber, pulp-wood, and paper. The dairying industry likewise supplies some fine manufactures. Metallurgy, machinery, leather, and textiles are still other manufactures. Yet the total value of all manufactures seldom reaches a third of a billion dollars. Estonia, like Finland, has wood and dairy products, various beverages, textiles, and machinery. Cotton, cement, and oil are promising industries, Estonia, in fact, being a pioneer in the extraction of oil from her abundant shale rock. This oil serves as fuel for the factories and the railroads. Latvia suffered heavily from the World War and Russian depredations. About one-fourth of her industrial values is represented by food, drink, and tobacco. Wood-working, chemical, metal-working, textile, and paper and printing industries also are practiced. Half of the Lithuanian establishments produce foodstuffs and beverages. Wood, leather, textiles, tobacco, and spirits are produced. As in most east European countries the establishments are small, the average number of workers to the establishment being

¹⁵ See *Current History*, July, 1932, Vol. XXXVI, pp. 501, 502.

approximately six. The combined industrial output of Estonia, Latvia, and Lithuania will just about equal that of Finland. The Industrial Revolution has scarcely begun, capital being limited, the people being ignorant, and markets being scarce. M. O. Williams, doubtless in figurative language, declared that, despite the need for rubbers, raincoats, and diving suits, "if the Provodnik factory in Riga worked at full capacity for a week, it would produce enough rubber goods to last Latvia and the surrounding countries for a year."¹⁶

Polish manufactures have shown development since 1864 and marked gains since 1875. From 1864 to 1905 the value of manufactures increased from about twenty-five million dollars to ten times that sum. Wage-earners numbered about twenty-seven thousand in 1875; now the number is nearly a million. Poland enjoyed the Russian markets, a fact which stimulated development. Then, too, her people learned from Austrians and Germans, who were better industrially. Agriculture, forests, and mines supply raw materials. Flour, meat, and sugar industries are all important. Even the potato supplies chips, flakes, and meal for export, glucose for home consumption, and the raw materials for the alcohol distilleries. The forests cover nearly a fourth of the country and furnish fuel, lumber, and pulpwood. The mines, too, are especially valuable. Upper Silesia, or the southeastern corner of old Germany, and the territory taken from Austria are rich in minerals. Coal production is normally in the neighborhood of forty million metric tons, but unfortunately the coal is not of good coking quality. Polish zinc mines are the most productive in Europe, oil is likewise important, and the salt mines close to the oil fields are virtually inexhaustible. Iron deposits, however, are not especially valuable; hence the good ore must be imported. Cement, ceramics, pottery, tile, brick, and glass are some of the manufactures aided by mineral wealth. Metals and machinery, cement, ceramics, and other non-metallic minerals give employment to large numbers of people, mining and metallurgy alone to about one-fourth of the total. The textile mills, centered at Lodz and Warsaw, employ nearly two-fifths of the industrial workers. Because

¹⁶ See the *National Geographic Magazine*, October, 1924, Vol. 48, p. 402.

the high Russian tariff had excluded many manufactures, especially textiles, Germans had attempted to avoid the duties by constructing textile mills in that part of Poland closest to Germany. Not only did they thus avoid the high Russian tariff, but they also obtained cheap Polish labor. Cotton, linen, rayon, silk, and woolen textiles are produced.

SELECTED REFERENCES

Angel, J. W. *The Recovery of Germany* (New Haven, The Council of Foreign Relations, 1932) Chapters IV and V.

Clapham, J. H. *The Economic Development of France and Germany* (Cambridge, The University Press, 1921) Chapters III, IV, X, and XI.

Day, Clive. *Economic Development of Modern Europe* (New York, The Macmillan Company, 1933) Chapters V, IX, XII, XVII, and XVIII.

Fontaine, Arthur. *French Industry During the War* (Oxford, The Carnegie Endowment for International Peace, 1926) Part I, Chapters I-V.

Hoover, Calvin B. *The Economic Life of Soviet Russia* (New York, The Macmillan Company, 1931) Chapters II and XII.

Ogg, F. A. and Sharp, W. R. *Economic Development of Modern Europe* (New York, The Macmillan Company, 1926) Chapters VII and X.

Price, M. P. *The Economic Problems of Europe Pre-War and After* (New York, The Macmillan Company, 1928) Chapters XII and XIII.

Stockder, A. H. *German Trade Associations. The Coal Syndicates* (New York, Henry Holt and Company, 1924) Parts I and II.

CHAPTER XXIV.

LABOR LEGISLATION, WELL-BEING, AND ORGANIZATION

Early Labor Legislation in England.—Before 1775 in England and until about 1840 in other nations of Europe labor was largely rural, not industrial, and life, though hard, was simple and fairly safe and healthful. With the introduction of the factory system, however, labor began to be exploited. Hours of work were long, wages were low, conditions were insanitary, outbreaks of fever were common, and worse than all else women and children were oppressed cruelly. Parish authorities frequently sent pauper children to the mills. Men trafficked in human flesh by procuring children where they were plentiful and transporting them to the regions where they were in demand. Concerning these condoned atrocities we read:

. . . The old Poor Law greatly aggravated the evil, for it not only put a premium on illegitimacy, but authorised the guardians to supply the factories with young children from five to six years old, like cattle or sheep, at so much a head, without the slightest restriction. . . Persons contracted for their children in the same manner; and to such an extent was the system carried, that in a noted case a number of children were put up for auction as part of a bankrupt's property. In another instance it was disclosed that a London parish had arranged to supply a factory in Lancashire with children on the understanding that one "idiot child" should be taken off their hands with every twenty sound children sent.¹

In 1802 the aroused public sentiment led to the passage of Peel's "Health and Morals" Act. This measure prohibited the binding out to factory labor of children less than nine years of age, limiting their working day to twelve hours, stopped night labor by them, ordered that every apprentice

¹ See "The Cry of the Children" in the *Quarterly Review*, July, 1906, Vol. 225, p. 31, also entire article, pp 29-53.

should have at least one new suit of clothes a year, insisted that bound children should attend religious services and receive an elementary education, and required that the factory building be whitewashed and properly ventilated. Yet the new act applied only to establishments which employed as many as three apprentices, twenty people in all, and its chief provisions related only to apprentices. Children going with their parents to the factories received little protection and continued to work for twelve to fifteen or more hours a day.

Robert Peel, who employed more than a thousand children in his own factories, was interested in their condition, a condition made worse by the increased use of steam power. And aided by Robert Owen, another wealthy manufacturer, Peel succeeded in securing the passage of the Act of 1819. This measure forbade the employment of children under nine but only in cotton mills, set the working day at twelve hours for children from nine to sixteen and with no part of that work between eight o'clock at night and five o'clock in the morning, and made the maximum working day for Saturday nine hours.

Growing Agitation for Reform.—Although supplementary acts in 1825 and 1831 tried to secure better enforcement of previous laws, conditions remained intolerable. Testimony has shown that the children sometimes began work at the age of three or four and often at six or eight. Conditions were grossly immoral, boys and girls frequently were confined together, overseers were often licentious beasts, boys and girls were kept in chains at times, and women and children were strapped, slapped, and kicked on the slightest provocation, that is, if they spoke during work, were late, or seemed sleepy. At times prizes,—bacon, potatoes, sugar, or dolls,—were offered to the boy or girl who would do the most work in a fortnight. Others were then urged and whipped to keep up the pace set by the prize winners. Sickness was no excuse. Some children worked one day and died the next.

Such was the case of the little girl, whom Sadler describes in "The Factory Child's Last Day." Nearly all day little Gillet Sharpe, forced to work by blows, if necessary, kept at her task. But an hour before closing time she gave out and hired a little boy for a half penny to finish her work. On her way

home she fell, but the other children half dragged, half carried her to her father's door. Said Sadler:

All night, with tortured feelings,
He watched his speechless child;
While close, beside her kneeling,
She knew him not—nor smil'd.

Again the factory's ringing,
Her last perceptions tried;
When from her straw bed springing,
"Tis time!" she shrieked, and died.

Many young children, because of mistreatment, committed suicide, as Elizabeth Browning noted in "The Cry of the Children." In that poem she pictured conditions vividly, yet truthfully, told how they yearned for death, referred to weariness, mentioned their unbelief in God, for "of His image is the Master," and insisted that the child's sob was a "deeper" curse than the strong man's oath. England awoke to the sad situation with the publication of Richard Oastler's fiery letter, dated September 29, 1830, in the *Leed's Mercury*. Oastler charged in part:

. . . Thousands of our fellow creatures and fellow subjects, both male and female, the miserable inhabitants of a Yorkshire town. . . are this very moment existing in a state of slavery more horrid than are the victims of that hellish system—"Colonial slavery". . . The very streets which receive the droppings of an Anti-slavery Society are every morning wet by the tears of innocent victims at the accursed shrine of avarice, who are *compelled* (Not by the cartwhip of the negro slave driver) but by the dread of the equally—appalling thong or strap of the overlooker, to hasten, half-dressed, *but* not half-fed, to those magazines of British infantile slavery—the worsted mills in the town and neighborhood of Bradford!!!

The blacks may be fairly compared to beasts of burden, *kept for their master's use*; the whites, to those *which others keep and let for hire* . . .²

Through the leadership of Robert Owen, Michael Sadler, Richard Oastler, William Cobbett, John Fiedler, and others the public obtained the facts. In 1831 Sadler attempted to secure a ten-hour day, but failed. The next year he lost his seat in Parliament, thus leaving the reform movement without a leader but not for long. Lord Ashley, later Earl of Shaftesbury, casting aside ease and possible preferment and risking

² See "Alfred" (Kydd, Samuel) *History of the Factory Movement* (London, 1857) Vol I, pp. 99-101 and Vol II, pp. 310, 311.

ostracism, took up the unpopular cause and finally carried through the Act of 1833, the first outstanding landmark in all labor legislation.

This measure regulated conditions in all textile mills. It provided for four government inspectors who had the right to enter any factory at will, to ask questions, and to summon witnesses. The inspectors were authorized to make supplemental regulations and in their enforcement as well as in the execution of the provisions of the original act they were given powers equal to those of a justice of the peace. Inspectors were to meet twice a year for discussion relative to their work and were to report twice a year to the Home Secretary. No child under nine years of age, except in the silk mills, could be employed. Children under thirteen could not work more than nine hours a day, or forty-eight a week, an hour and a half being allowed for meals. Children from thirteen to eighteen were limited to twelve hours a day and sixty-nine a week, similar arrangements being made for meals. Persons under eighteen were not allowed to work between 8:30 and 5:30 at night. The act insisted that the children be given an average of two days' schooling a week and two whole and eight half-holidays each year.

Continued Oppression of the Children and the Workers.—When the Act of 1833 was passed, there were fifty-six thousand children at work in three thousand mills, but a half decade later there were only twenty-four thousand children at work in four thousand mills. Still the law was violated through the use of relay systems and through the fact that the certificate of any doctor or surgeon was considered sufficient proof of age. Many groups of workers, moreover, were outside the scope of the act. To some of the resulting abuses we shall turn our attention.

Unbelievable almost are some of these reports. And so we shall quote copiously from government documents and contemporary literature. Concerning the coal industry one government document states:

That at different ages, for six years old (even four) and upwards, the hard work of pushing and dragging the carriages of coal from the workings to the main work, or to the foot of the shaft, begins. . .

That. . . both sexes are employed together in precisely the same kind of labour, and work for the same number of hours; that the girls and boys, and the young men and the young women, and even married women and women with child, commonly work almost naked, and the men, in many mines quite naked. . .³

Naturally the children and young persons employed were ignorant, only thirty-one out of 219 employed in the neighborhood of Halifax being able to read an easy book and only fifteen out of 219 being able to write their names. Their knowledge of the Bible is indicated by such answers to questions as "I don't know who made the world; I never heard about God"; and "Jesus Christ was born in Heaven, but I don't know what happened to him; he came on earth to commit sin. Yes; to commit sin." And the employers admitted this heart-breaking ignorance. Said one to the commissioners: "You have expressed surprise at Thomas Mitchell not having heard of God. I judge there are few colliers hereabouts that have."⁴

In the calico printing trades large numbers of boys and girls were employed as *teerers* in mixing and grinding the colors for the adult laborers. Their usual hours were twelve, including meal time, but says the *Second Report* it was "by no means uncommon in all districts for children of five or six years old to be kept at work fourteen and even sixteen hours consecutively." Concerning the evil consequences of night work, and especially the general state of education the authorities were bitter.⁵

In metal wares hours were very irregular, generally running ten to thirteen a day, but at times reaching fifteen or sixteen for weeks. The worst phase was mistreatment:

In Willenhall the children are shamefully and most cruelly beaten with a horsewhip, strap, stick, hammer, handle file, or whatever tool is nearest at hand, or they are struck with the clenched fist or kicked.

In Sedgley they are sometimes struck with a red-hot iron, and burnt and bruised simultaneously; sometimes they have a "flash of lightning" sent at them. When a bar of iron is drawn white-hot from the forge it emits fiery particles. . . This shower is sometimes directed at the boy. . .⁶

But cruel oppression was common in other forms of em-

³ Children's Employment Commission *First Report*, 1842, pp. 256, 257

⁴ See Children's Employment Commission. *Second Report*, 1843, p. 156 Employment of women and boys under ten in underground work was forbidden in 1842

⁵ See Children's Employment Commission *Second Report*, p. 172

⁶ *Ibid.*, p. 83

ployment. The Reverend Benjamin Waugh pictures the diabolical devices of devilish employers and overseers who found exquisite joy in the anguish of helpless, hopeless children. Listen to his sober words:

Besides canes, straps, whips, and boots, belts and thongs of rope, the instruments of torture have been hammers, pokers cold and hot, wire-toasting forks—in one case the prongs of the fork hammered out, the stem untwisted a little up, making a sort of birch of frayed wire; a file with which the skin on projecting bones has been rasped raw; a hot stove, on which the child's bare thighs were put; hot fire grates, against which little hands were held.⁷

Under such oppression morals were virtually unknown and illicit sexual intercourse was well-nigh universal. Can anyone wonder why the children stole, why the children were immoral, why there were forty-eight thousand cases of baby-farming yearly, usually to hide the mother's shame, why disease was common and children were underweight and underheight, in mining, for example, being three to six inches shorter than farmers' girls and boys from twelve to sixteen years of age!

In lace-making the work was light and children customarily began at four or five. Authorities occasionally even found children two years of age attempting to work with their mothers. Half-fed and half-clothed these children were dwarfed in body and in mind. Of a somewhat similar nature were conditions in the millinery and dress-making trades. London alone had 1500 employers who averaged ten workers to the establishment. In the spring season the common hours were from six in the morning, sometimes four, until twelve at night.

Children likewise endured excruciating pain in the farm work. In eastern England gangs of laborers travelled from place to place under a "gang master" or were formed by the farmers themselves. Included among the twenty thousand workers of this type were numerous children between six and thirteen.⁸

In the brickyards, thirty thousand children, some as young

⁷ *The Quarterly Review*, July, 1906, Vol. 205, pp. 44, 45.

⁸ See *Ibid.*, Vol. 205, pp. 35, 36. Lord Ashley obtained the legislation to stop the abuses in 1867.

as three and a half years, struggled painfully for fourteen to sixteen hours a day. Lord Ashley said, in introducing a measure for their relief:

I saw little children, three parts naked, tottering under the weight of wet clay, some of it on their heads and some on their shoulders and little girls with large masses of wet, cold, and dripping clay pressing on the abdomen. Moreover, the unhappy children were exposed to the most sudden transitions of heat and cold; for, after carrying their burdens of wet clay, they had to endure the heat of the kiln and to enter places where the heat was so fierce that I was not myself able to remain more than two or three minutes.⁹

As early as 1760 attention had been called to the chimney sweeps. These children were kidnaped or were sold by their inhuman parents or poor-law guardians to the master sweeps. A select report, published in 1817, shows the atrocities practiced:

Boys and girls of five or six years old were sent up chimneys, sometimes so narrow that they got jammed and had to be cut out by breaking in the wall. Protected by nothing but a ragged shirt, the skin of knees and elbows was invariably broken; and the ankles became crooked from the distortion and strain of climbing. The children suffered intensely from the master's practice of rubbing the bodies with brine in order to harden the skin; their eyes got bleared from soot and dirt; and in time cancer was developed in the scrotum from want of cleanliness, and was a recognized disease of the trade. Straw was lighted to force them to ascend quickly; and they were beaten and bruised with the brush or other weapon for the slightest offense. Deaths occurred from time to time by choking and suffocation in the flues. It was a common practice to send them up chimneys on fire in order to extinguish it, when they were drenched with water poured down from above. They had to carry heavy loads of tools, cloths, and soot; they were ill-clad and suffered intensely from the cold in winter, as most of their work was done in the early hours of the morning; they were ill-fed and slept in sheds or cellars on the soot-bags in their wretched rags; and they were for months, and even a year without the use of soap and water.¹⁰

Charles Lamb and humanitarians here and there sympathized with the chimney sweeps, but others believed that there were many chimneys in old houses which could not "possibly be swept in any other manner" and that "great injury to property" and increased risk from fire would result if the children were freed from the work.¹¹

⁹ *The Quarterly Review*, Vol. 205, p. 36. Lord Ashley was in part responsible for remedial legislation in 1871 and later.

¹⁰ *The Quarterly Review*, Vol. 205, pp. 33, 34

¹¹ See *Ibid.*, Vol. 205, p. 34.

"Why didn't the parents help the children?" you may ask. Oppressed by an iniquitous poor law which encouraged employers to reduce wages in order to have their workers live off the property-holders, even kind parents could do little. On July 11, 1842, Lord Brougham, pictured vividly yet moderately the sufferings of the abused industrial employees and the operation of the abominable poor relief system:

In Leicester, Shropshire, Staffordshire, Warwickshire, Yorkshire, and Lancashire, wages were reduced, houses left untenanted, rents had fallen one-half or less, able-bodied and healthy men—at least men who were once in health—men well skilled in their respective branches of trade, men able and but too anxious to work, were thrown out of employment by thousands. Wages were reduced in some instances to six pence a week, rather less than one penny for each and every day. The poor's rate increased in some places four-fold, and in others doubled that amount, and the defalcation of rateable property has gone on from 20 to 30, 40, and sometimes 50 per cent. There have been found such occurrences as 7, 8, and 10 persons in one cottage, *I cannot say for one day, but for whole days, without a morsel of food.* They have remained on their beds of straw for two successive days, under the impression that in a recumbent posture the pangs of hunger were less felt. Members of religious congregations have been frequently taken from the places of worship fainting from illness and weakness brought on from want of proper sustenance.¹²

Labor Legislation Since 1833.—The Factory Act of 1844, applying to virtually all textile establishments, furnished protection for three classes of workers: children, young persons, and adult women. In one respect it did go backward, namely, in making eight in place of nine the age below which children could not be employed. They were to have three hours daily of instruction in place of two. Young persons, or those between thirteen and eighteen, were to work twelve hours a day, or sixty-nine a week. Adult women employees were given the same protection as young persons were given. Holidays were the same as under the Act of 1833. Enforcement provisions were made strong, dangerous machinery was to be fenced, and money compensation was to be awarded for avoidable accidents arising from unfenced machines. Meanwhile agitation for the ten-hour day continued, culminating in the passage of such a measure in 1847, effective the next year. All women and young persons in the textile industry were to work not more than fifty-eight hours a week.

Employers, however, again used the relay system, keeping their factories open fifteen or twenty hours a day. Accordingly, in 1850, another act forbade employment between six at night and six in the morning in summer and seven at night and seven in the morning in winter. Three years later similar regulations were applied to the children. Although these regulations applied specifically only to women and young persons in the textile industries, they affected the men also, for the factories could not run profitably on male labor alone.

The provisions applying in the textiles soon became general, bleaching and dyeing establishments, bakehouses, potteries, lucifer match factories, cartridge and percussion-cap factories, and fustian cutting and paper staining all being regulated in the first half of the sixties. The Factory Extension Act of 1867 extended the laws to various metal industries, paper, and glass factories, tobacco works, printing and book-binding plants, and all others which employed as many as fifty people. The Workshop Regulation Act of the same year made somewhat similar regulations with regard to the smaller plants. In 1874 the working day of protected persons in textile industries was reduced by a half hour. In 1878 the numerous laws, often contradictory, were brought together in the Factory and Workshop Act, which recognized five types of establishments,—textile and non-textile factories, workshops, "domestic" workshops employing only members of the family, and workshops employing only adults. The distinction between a factory and a workshop was made to depend, moreover, not upon the number of workers but upon the use or non-use of machinery driven by mechanical power. Some occupations were left unregulated, as were workshops in which only men were employed.

In the period up to the outbreak of the World War the legislation just noted was extended gradually and special measures were enacted to protect laborers in the dangerous trades. The minimum age at which children might be employed was raised from ten in 1874 to eleven in 1891. In 1901 the new consolidated and revised measure raised it to twelve. Factories were classified as textile, non-textile, domestic, and tenement, and workshops were labelled as domestic, adult,

male adult, and tenement. Special legislation provided for the mines and quarries with a depth of more than twenty feet and the railroads except for the lines and sidings used in connection with factories. Children, young people, and women in textile factories were to work between six and six in the summer, and seven and seven in the winter with two hours for meals. They were to work not more than four and a half hours at a time and were to have a Saturday half-holiday. In other industries the ten-hour day prevailed, but limitations were less stringent. Night work, save for males under specified conditions, was prohibited to people under eighteen and over-time could not be later than ten o'clock at night or earlier than six in the morning for women. Six holidays per year were to be allowed in all establishments and Sunday work was prohibited except for Jews under stated conditions. Children between twelve and fourteen, young persons between fourteen (or thirteen on presentation of educational certificate) and eighteen, and women were safeguarded, and an important body of provisions relative to sanitation, safety, etc. applied to all workers.

The Mines Act of 1842 had been extended by numerous acts providing for reports on accidents, the use of various safeguards, etc. The Act of 1872, still in force in 1914, left the prohibitions relative to the employment of women and girls underground. The age at which boys might be employed underground was raised from ten in 1872 to twelve in 1884 and to thirteen in 1900; the age for employment above ground was raised from ten in 1872 to twelve in 1887. Boys could not be employed underground for more than fifty hours a week, and in 1908 eight hours in any twenty-four became the maximum for any worker.

Factory inspection, under the Home Office, was provided for carefully. It consisted of a supervising force, the district inspector's force, and a special inspecting force. For the administration of factory and workshop regulations there were six great divisions and fifty-one districts. In 1913 some 224 inspectors at a cost of about a half million dollars were maintained. Since 1850 civil service examinations have been in-

troduced gradually, by 1914 severe examinations and two years of probation being required.

Sweating has been a problem for the inspectors. The term was employed early to cover a system of subcontract in which the middleman kept wages as low as possible. The work, for the most part, was carried on in the laborer's home under gruesome conditions often such as pictured in Kingsley's *Alton Locke*. The term now is made to cover three evils: low wages, long hours, and insanitary conditions of the homes. Constant agitation finally culminated in the Trade Boards Act of 1909. That measure first applied only to such industries as ready-made and wholesale tailoring, the making of paper or chip boxes, chain-making, and lace-making, but it has been extended. Trade Boards with equal representation of employers and employees and appointed members of less than half those of the representative members are provided for. The boards fix wages for the prescribed trades to be effective within six months after being set on penalty of heavy fines.

During the World War the government used women, children, immigrants, prisoners, and refugees to a considerable extent, imposed limitations on recruiting, and adopted military conscription. By a system of badging, adopted in 1915, workers not indispensable to industrial production were taken for military service, the entire population between fifteen and sixty-five being registered. By the close of 1916 debadging in some industries was necessary. By 1917 labor conscription had become fairly well established notwithstanding the opposition of union labor. The Munitions of War Act passed in 1915 declared strikes and lockouts in plants manufacturing munitions illegal, provided for the compulsory arbitration of disputes, required the suspension of trade union restrictions on output, declared the leaving of work or the persuasion not to work in a controlled plant without the permission of the minister of munitions a punishable offense, and required that all offenses and disputes under the Munitions Act be heard by special munition tribunal. Farm labor, too, was regulated by exempting certain classes from military service and by the setting of a maximum wage in 1917. Since the war there

has been a remarkable extension of the eight-hour day, some of the trades even securing a forty-four hour week.

Labor Legislation in Other Countries.—A French law in 1803 forbade work in manufacturing establishments earlier than three o'clock in the morning and required that each worker carry a "work book." A police ordinance of 1806 set the hours of work for masons, carpenters, bricklayers, plumbers, and some other workers. In 1813, twenty-nine years before such a law was passed in England, a comprehensive measure regulated mine work. The next year legislation made some provisions for holidays and established some measures for stoppage of work on Sundays. The first important law, however, was not enacted until 1841. Children under eight could not be employed, those between eight and twelve could not work more than eight hours a day, and those between twelve and sixteen were prevented from working more than twelve hours a day. The Revolution of 1848 checked possible gains for labor, little additional legislation of importance being enacted prior to 1874. The law of that year applied to mines as well as to industries. It prohibited the employment of children under twelve except in some cases where the age was ten, limited the hours of children between twelve and sixteen to twelve, assured rest intervals, forbade night work for boys less than sixteen and for girls less than twenty-one, insisted on school instruction for those less than thirteen, and provided for sanitary conditions in workshops. For the first time law gave legal protection to women and for the first time it provided for a special inspection force, dual in nature until 1892. Legislation in 1914 raised standards and forbade the employment of children under thirteen, except for those twelve years of age who had completed the primary school and were physically fit. War caused the extension of woman and child labor and temporarily of hours, but in 1919 legislation gave the benefits of the eight-hour day to all the workers except those in the liberal professions and in agriculture.

In Germany the inability of the Rhine districts to supply the army contingents forced action in 1839, the employment of children under nine being prohibited. In 1853 the lowest

age at which children could be employed was raised to twelve and children under fourteen were not to be worked more than nine hours a day and were to go to school three hours a day. Laws in force in 1914 prohibited the employment of children under thirteen and limited the hours of those under sixteen to ten a day and barred them from night work. Labor legislation applied equally to all parts of the empire, but enforcement was left to the states. Germany exploited woman and child labor and lengthened the working day in a marked way during the World War. The government in 1919 adopted an eight-hour working day for employees in commercial establishments, but that rule has not been well observed even for the ones to whom it applies. The Hitler government is driving women out of industry and back into the homes.

Belgium has a fair system of labor regulation dating in part from 1813, but its Sunday rest law did not come until 1905. Legislation in Austria-Hungary dates from 1853, but inspection did not begin until thirty years later. Protective legislation in Switzerland dates from 1815 when both Thurgau and Zurich attempted to protect children working in factories and workshops. Not until forty-five years later did Zurich enact a comprehensive law which served as a model for later legislation. Yet cantonal laws varied so much that constant agitation led to the passage of a federal law, which, several times amended, in 1914 prohibited employment for children under fourteen and made the usual safeguards. Law was federal, but enforcement was local. Unlike conditions in Germany, however, the inspectors were employees of the national government.

Legislation came more slowly in the agricultural regions of northern, western, eastern, and southern Europe. In most of its important characteristics Dutch labor control dates from 1874. Denmark's legislation of 1901 was as liberal as any in Europe. Norway had a liberal labor law in 1872. Sweden, switching from agriculture to manufactures, enacted labor laws, the legislation of 1901 being as liberal as that of Denmark. Russia was much slower than northwestern Europe in developing labor laws, but she had made a beginning prior to 1914. Italy's first important law was enacted in 1886.

Spain made a small beginning in 1900. Labor legislation in Portugal is almost as recent as in some of the Balkan countries and the nations born of war or awakened by war. Yet protection for the workers has been given in virtually all European countries.

In general, we may summarize, legislation was passed in the countries in the order in which they experienced the Industrial Revolution and was extended to other countries as the new methods, new machinery, and their resulting evils appeared. The laws prescribed a minimum age below which children could not be employed and this age was raised from time to time. For the young people who were allowed to work the hours were made to depend upon the age, the nearer to the minimum age the shorter the working day. A growing tendency to restrict night work also appeared, here, too, the age below which they could not work being raised. Most of the early laws made provisions, improved as time passed, to safeguard the morals of the children and to furnish them with an elementary education. Only gradually, however, were adequate inspection provisions made. Next in order was the legislation for the women. Gradually they were given the protection that had been extended to the children. Throughout the period, too, there was a tendency to decrease the hours of work for all and since 1800 the average length of the working day has been reduced by half or more, the number of hours now approximating eight. From an early period particularly dangerous occupations have been subject to special regulation. As a rule only in these dangerous trades did the men receive much protection until near the close of the nineteenth century, the idea often being that freedom of contract should not be infringed. Now, however, the general tendency seems to be to regulate all labor in the interest of the general welfare, sanitation, ventilation, and various safety provisions being well-nigh universal and minimum wage laws increasing. Safety and health precautions, of course, helped the men as well as the women and the children.

The treaty of peace closing the World War was a high mark in the history of labor because it led to the formation of an international labor organization designed to protect and to

improve the condition of the workers in all countries. The International Labor Office and the General Conference, the latter with legislative functions, were formed. The General Conference meets yearly or oftener and is composed of four representatives from each member state, half being appointed by the government and the other two being named by organized labor and capital. The office is controlled by a governing board of twenty-four, half government representatives and the remainder equally divided between employers and employees. Two-thirds of those representing the government are chosen by the leading industrial states, that is, by Great Britain, France, Germany, Italy, Belgium, Canada, Japan, and India. Those on the governing board are chosen for a term of three years by the conference. Over the office is a director. The duties of the office relate to the collection and publication of information relative to industrial life and labor.

Since 1919 a large amount of work has been done, the permanent staff numbering more than three hundred persons and representing about three score countries. The most important work has been the preparation of a score or more of draft conventions covering such subjects as the eight-hour day, weekly-rest, workmen's compensation, and the employment of women and children. The treaty gave some important principles to guide the work of the organization, namely, that labor is not solely a commodity, that its right to organize is unquestioned, that the eight-hour day be universally sought, that one day of rest each week, on Sunday if possible, be obtained, and that men and women should receive equal pay for equal work. Yet the work of the International Labor Office, if effective, must be ratified by the states. Ratification of all draft conventions by January 1, 1935, reached the 636-mark.

Social Insurance.—A type of labor legislation needing special treatment is social insurance. In that work Germany was the pioneer. Give the laborers fair wages, sickness and accident insurance if unable to work, unemployment insurance if out of work, and old age insurance if too old to work, ran the argument, and they will be happy and contented. And with Bismark appeared another reason: "The Socialists will

sing their siren song in vain." Early efforts failed, but in 1883 a sickness insurance measure passed, in 1884 an accident insurance bill received approval, and in 1889 an old age and invalidity insurance measure passed. In 1911 these acts, with their modifications, were brought together in a unified Workmen's Insurance Code more elaborate than any the world had ever known.

The original sickness insurance applied to persons in quarries, mines, factories, and some other establishments when they received less than two thousand marks a year, but notable extensions soon occurred. Approximately one-third of the cost came from the employers and the balance from the employees. The first accident insurance law covered only a few especially dangerous occupations, but subsequent legislation broadened the scope until by 1911 virtually everyone whose wage or salary was less than five thousand marks was included, the cost being carried by the employers. Developments in old age and invalidity insurance by 1914 had covered virtually all wage-earners over sixteen and numerous salaried men and women drawing less than two thousand marks. Except for a little aid from the government the cost was borne in about equal proportions by the employers and the employees, the latter paying about one and a half cents to four cents a week. Benefits were approximately two-thirds of the average wage for most types of insurance. Insurance for salaried employees went into effect early in 1913 for about two million people, one-fifth women. Prior to the World War public and private inns, allowing work for meals or cheap board and lodging, labor colonies, the development of hospitals for workers, and municipal unemployment schemes made their appearance. Within the last decade, moreover, Germany has made notable development of unemployment insurance.

Austria-Hungary in point of time was the first country to follow Germany's example in the establishment of compulsory workingmen's insurance, accident in 1887 and sickness in 1888. The country which most widely imitated Germany's example, however, was England. That country did not recognize the principle of employers' liability until 1880, but thereafter it extended the system and improved the laws. The

English government bears the whole cost of old age insurance. The National Insurance Act of 1911 was a landmark. Those compulsorily insured for sickness and invalidity fell into two main groups: all those between sixteen and seventy engaged in manual labor and all those employed in any other labor if their income was £160 a year or less. England, because government, employers, and employees generally contributed, gave higher benefits than other countries. England, moreover, was the pioneer in unemployment insurance, making a notable beginning in 1911 in the building and engineering trades.

France likewise has developed social insurance schemes, starting with sickness insurance. Both sickness and accident insurance were mainly voluntary, miners and seamen being the most notable exceptions. By paying high interest rates the government sought to encourage the growth of savings accounts by workers. Beginning in 1895 the government has followed the policy of adding small subsidies to the annuities of workers seventy years of age and over if they have been depositors for a specified period of time. A far-reaching act was enacted in 1910, favor being shown to ex-service men and to mothers. If payments numbered thirty, the government subsidy was one hundred francs. For men who had been in military service payments were made twenty-eight and for women each childbirth was counted as one year's payment. In 1930 France made a notable extension of her system by a sickness insurance measure. The law covered men and women between sixteen and sixty in agriculture and domestic service, commerce, and industry. The man receives medical care, medicines and hospital service included, and a daily pension of twelve to seventy-two cents dependent upon the wage group to which he belongs. For each non-working child under sixteen in his family the benefit is increased by four cents a day. If, after five months, the laborer is still unable to work, an invalidity pension of forty per cent of his average wage takes the place of his daily allowance. It becomes permanent if the man is fully incapacitated. The law also provides for the carrying of the unemployment insurance for as much as a

third of the year if necessary, for survivors' insurance, for early retirement, and for maternity insurance.

Schemes in Belgium, Holland, and Italy have much in common with the French plans. Belgium gave recognition to the friendly relief societies as early as 1851. Compulsory accident insurance for miners was required after 1868. Of course, the system was extended from time to time, compulsory old age insurance for both sexes being voted in 1924 when the income was less than a thousand francs and large families being encouraged by the legislation of 1928. Holland and Italy, less industrial than Belgium, naturally moved more slowly. Early twentieth-century efforts to secure social insurance in Holland failed, trade unions subsidized by municipalities handling most of the work. Following the World War, however, Holland made use of voluntary unemployment insurance. Italy began to subsidize private societies in 1886. In 1898, following the experiments with voluntary insurance, Italy enforced compulsory accident insurance. In the same year she started invalidity and old age insurance. Mussolini has emphasized properly and effectively "work not doles" in fighting unemployment.

Denmark's beginnings occurred in the nineties, Norway's about the same time, and Sweden's in 1901. All of these countries acted slowly; for example, Sweden had a commission investigating insurance as early as 1884 but waited seventeen years before she could secure a law. Finland has used unemployment insurance. The small Baltic countries and the Balkans were slow in starting. The Soviet government of Russia has a well defined scheme of social insurance covering illness, permanent incapacity, occupational accidents and disease, maternity, funeral, unemployment, dependents of incapacitated and deceased workers, medical treatment, and old age. Shortly after the World War Spain provided for contributory old age pension schemes and for voluntary unemployment insurance. Portugal, too, has made a beginning in social insurance, notably health. In 1924 Czechoslovakia put into effect one of the strongest social insurance schemes in Europe. It provided for accident, invalidity, old age, unemployment, and sickness insurance. The support of the system

came in general from equal contributions by employers and employees.

The World War was the agency which greatly promoted the spread of social insurance. With the pre-war German code as a basis, Austria, Bulgaria, Poland, Portugal, Yugoslavia, Greece, Russia, and Czechoslovakia passed insurance legislation, making the contributions depend upon the probable days of sickness per member. Even before the war ended Norway in 1918 provided for a thorough reorganization of her system. But the insurance most widely adopted, because of disorganized conditions, was unemployment. Italy, Austria, Russia, and Poland, for example, from October, 1919 to July, 1924 adopted compulsory unemployment insurance and nine other countries—Denmark, Holland, Finland, France, Spain, Czechoslovakia, Switzerland, Belgium, and Norway—gave grants in support of voluntary insurance. Old laws are being amended and new laws are being passed each year, the year 1934 showing a recovery from a temporary retardation. Most of the systems cover industrial and commercial workers but omit agricultural.

To summarize, Germany started the system of social insurance, but England surpassed her teacher in some respects, notably in unemployment insurance. In accident insurance, with few exceptions, the burden is borne entirely by the employer, and the benefits to the injured worker are normally two-thirds of the usual wage or a little less. In sickness insurance the cost is borne by employers and employees, the latter normally paying a slightly higher proportion of the expense than the former. Benefits are varied, including medical treatment, maternity benefits, and a benefit of one-half to two-thirds of the regular wage. In old age and invalidity pensions both employers and employees, unless as in England the state assumes the burden for old age pensions, pay the fees and the pension amounts to about the same proportion as in the case of sickness and accident, namely, two-thirds of the ordinary wage for invalidity and an amount dependent upon some other income for old age. The same principles, too, are employed in the case of survivors' insurance. In these various types of insurance all workers who cannot prove their

financial independence are compelled to insure if their incomes fall below specified sums. Unemployment insurance, the last type to be adopted, has spread most rapidly. Funds are supplied by employers, workers, and the government, payments depending upon contributions and being scaled lower than the current wages in order to induce the workless to secure positions as soon as possible. On the whole, the state in England assumes a greater share of the burden than in any other country, the share in Germany, the leader, prior to the war, being confined to the costs of administration plus a small subsidy in old age insurance and payments for men when they were in the army or the navy.

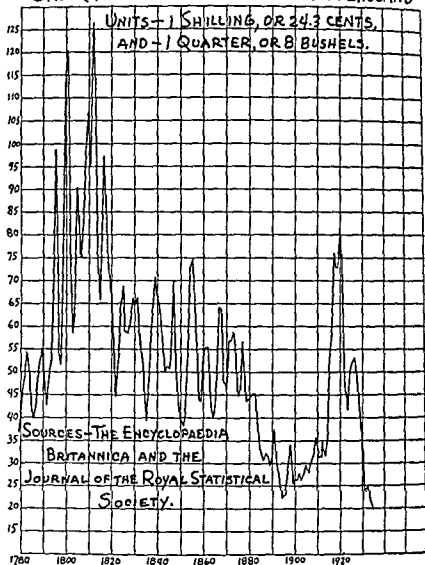
The Well-Being of Labor.—Having referred from time to time to labor laws and laborers we shall now bring together a few things of vital importance to labor, namely, the purchasing power of wages, the labor of women, unemployment, and housing reform.

Although prices do not always increase in time of war, they usually do so, as in England during the Napoleonic, American Civil, and World Wars. As an illustration of such increases we shall note here the Napoleonic Wars. During that period the English government took one-third to one-half of the poor man's income. At Glasgow, 1810 to 1815, the average wage was less than three dollars weekly, but wheat averaged ninety-three shillings a quarter, or nearly three dollars a bushel. Even if the worker had been exempt from taxation he would have encountered difficulty from the rising prices. France seemed ruined at the close of the Napoleonic Wars, taxes being temporarily uncollectable because the people had only the barest subsistence.

For England the peak of prices in the late Napoleonic struggle was almost twice as high as the level in 1790. A marked fall occurred after the battle of Waterloo and with some fluctuations the tendency was downward to 1850, when they were one-fourth lower than in 1790. The Californian and Australian gold discoveries of 1848 and 1851 caused an irregular upward movement until 1873. The demonetization of silver with the resulting demand for gold then caused a

decrease in prices, the low point of a century and a half being set in 1895-1897. When South African gold mines began to produce in a marked way prices rose gradually to the outbreak

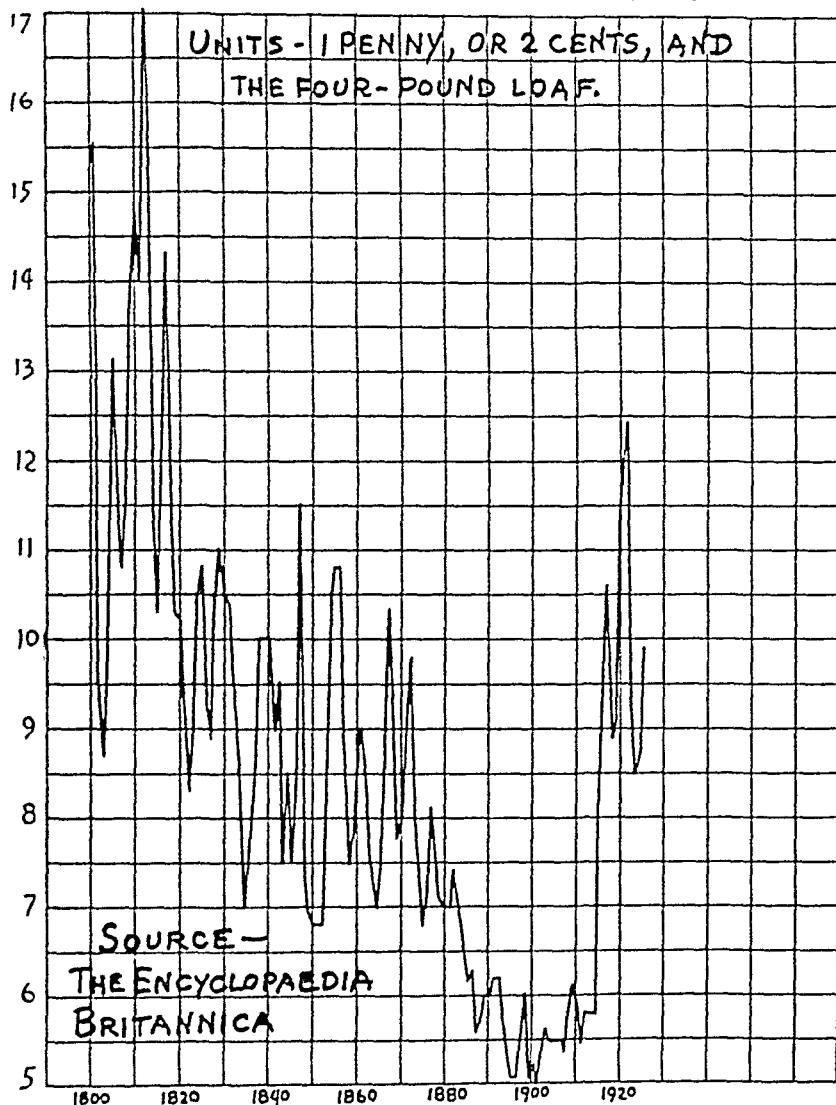
CHART NO. 27 - PRICE OF WHEAT IN ENGLAND



of the World War, being in 1913 approximately the same as in 1844 and 1851. Another high point was set in 1920. Sharp rises, usually temporary, occurred during the Crimean War,

the American Civil War, the Franco-Prussian War, and the African War, but they did not compare with the well-known advances of 1790 to 1815 and 1913 to 1921. Sharp decreases

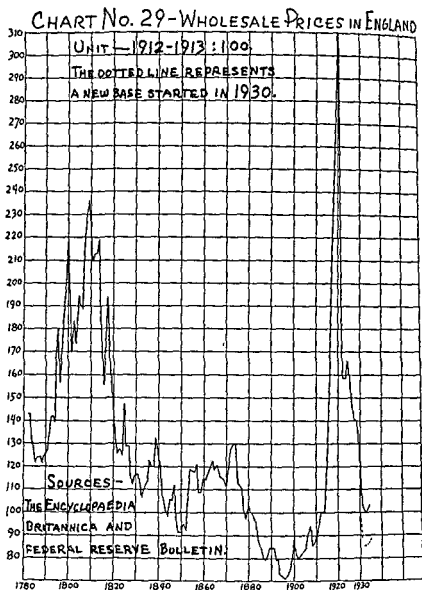
CHART NO. 28 - PRICE OF BREAD IN ENGLAND



in prices occurred during commercial crises such as those of 1825, 1836, 1839, 1847, 1857, 1873, 1880, 1891, and 1907.

Improvement was rather general in the last quarter of the

nineteenth century. By the beginning of the twentieth century the French workman, for example, revealed a marked increase in well-being over the worker of 1870. During the

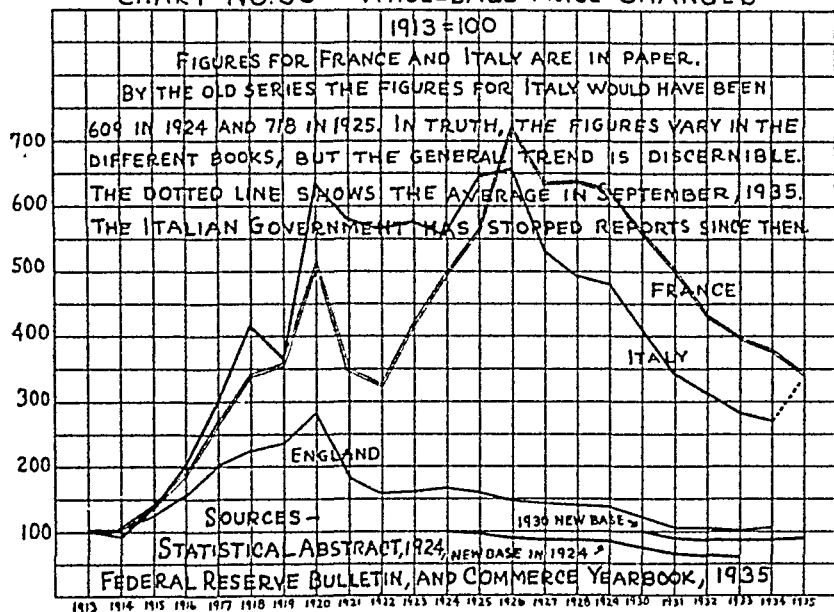


nineteenth century the consumption of meat had virtually doubled, that of coffee had trebled, that of sugar had gained tenfold, that of wine had doubled, and that of beer had in-

creased approximately seventy per cent. The town artisan was better-fed, better-clothed, better-housed, and better-equipped with worldly goods than either his father or grandfather had been equipped. He profited from the inventions of a philanthropic legislature and rejoiced in free medical and judicial aid.

Sharp discrepancies between prices and wages always occasion dissatisfaction, often, in fact, marked suffering. Governments, consequently, have used two main methods in their efforts to adjust living costs to wages. Price-fixing was used

CHART NO. 30 — WHOLESALE PRICE CHANGES



extensively during the World War. In that struggle, moreover, all the combatants followed a rationing policy, most encouraged cooperative buying and production, discouraged advertising, examined profits, and forced the temporary combination of competing services.

With the first sharp rise in prices laborers in essential industries commenced to demand war bonuses. Governments partially met the demand by giving special bonuses to the heads of families. Employers thereupon at times discriminated against the heads of families. Often the employers

formed equalization funds for the purpose of prorating the costs of the system among the whole group. That system gained momentum in the post-war inflation and in 1930 applied to approximately six million workers in Austria, Belgium, France, Germany, and other countries of central and northern Europe. In England, which did not use the family allowance system, as late as 1922 almost three million laborers had a sliding scale of wages based on the index of the Minister of Labor as modified by expediency, usually not being as much in either direction as the index called for.¹³

A discussion of a few countries will show the general trend since 1914. Virtually everywhere the high point in prices was set in 1920. If 1913 is taken as the base, wholesale prices rose from a hundred to 295 in Great Britain, to 510 in France, to 624 in Italy, and to 1,486 in Germany. In the last country, however, the high point came in 1923 at 16,619,000,000,000, in November of that year the paper marks reaching the unimaginable total of more than four hundred sextillion.

For the first two or three years of the war there was a decline in real wages, but in 1918 a decided improvement began for England. Up to 1921 the wages of unskilled workers rose more than did those of skilled laborers. After the war the salaries of professional workers and civil service employees had a lower real value than they had before the war.

On the whole, wage increases in small towns were more than they were in the large cities. Women made greater gains than did men. Probably the highest value of the real wages was in the fall of 1920, family earnings then being higher than in 1914 because of high monetary rates and the additional earnings of women and children who were employed still in a variety of occupations. With the business depression of 1921 the welfare of the worker declined until the autumn of 1922. Thereafter came an upward trend, the worker becoming as well off as he was in 1915 and enjoying a shorter working day. Yet conditions were not uniform. The agricultural laborer suffered. The cost of living for him had

¹³ See Douglas, Dorothy W. in *The Encyclopædia of the Social Sciences* (The Macmillan Company, New York, 1931) Vol. IV, pp. 478-483.

increased eighty-seven per cent by the spring of 1917, but his wages had gone up only forty-two per cent. The war had been over three years, in fact, before farm wages caught up with the increased cost of living.

In France, too, the rise in cost of living preceded wage advances. There, too, manual laborers made gains not duplicated by salaried employees. Workers in the munitions trades were favored by a "high cost of living bonus." Increases varied in the different sections of the country, the largest occurring in the western part of the country and the smallest in the northeastern part. In 1919 wages had a higher purchasing power than they had had in 1913, in 1920 they fell below that level, but the next year declining prices raised them ten or twenty per cent above the 1913-level. France, with Great Britain and Belgium and perhaps other western countries, thus gave labor a purchasing power equal if not superior to that of 1913.

The defeated states and those of eastern Europe in general were less fortunate than were the states of western Europe. German marks and Russian rubles became so abundant that their worth was less than the original value of the paper on which they were printed. Conditions were so bad in Germany that the average consumption of food in 1923 was not much more than half that of 1913. The little organized manual workers and the lower salaried classes suffered most from inflation and the laborers in textiles, chemicals, and mining suffered least. Currency stabilization in Austria, Germany, Poland, and other countries has had a two-fold effect: the increase in the purchasing power of wages and a marked increase of unemployment. By April, 1924, prices on a gold basis in Germany were only twenty-two per cent above 1913. In purchasing power wages, however, were only eight or nine-tenths as much as they were in 1913 and the pre-war level was not reached by 1927. In virtually all countries, too, in recent years unemployment or irregular employment has injured many workers.

Yet exceptions appear for those regularly employed. Although employers and governments scaled down wages during the Great Depression men who worked steadily profited

because wage reductions averaged less than price decreases. Real wages for each full year stood higher for those fortunate enough to be employed than they were in 1929. In most countries prices began to rise in the fall of 1933.¹⁴

One of the main factors causing an increase in the adoption of unemployment insurance was the dislocation of industry occasioned by the spread of the Industrial Revolution and the disorganization resulting from the World War. Manufacturers often substituted the labor of women and children for that of men in the early part of the nineteenth century. The World War supplied the opportunity for women to enter industry under the guise of patriotism. With twenty million men withdrawn from productive work throughout the war some new source of labor had to be obtained. And so prisoners of war, old men, children, and women were used. Although in Prussia, Bavaria, and other parts of Germany the gain was not quite so great as it was in England and France, the war virtually doubled the employment of women. Their wage increases were about the same as those of men. Because of the demand for labor there was a general tendency to increase the hours of work for the women as well as for the men, especially in Germany, France, and Italy.

Organized labor has never welcomed women into industry. Yet if women are to enter industry the laborers want them to organize and to demand well-nigh equal pay for equal work. The English "National Federation of Women Workers" increased its membership from eleven thousand in 1914 to more than sixty thousand five years later despite the fact that most women went into the mixed trade unions. In 1930 not quite one-third of the women wage-earners were in unions. In Germany women generally organized in unions separate from the men, especially non-factory workers. Office clerks, secretaries, sales people, trade employees, and shop assistants had one of the strongest of the German women's unions. Many women remained in industry after the war was over, thus accentuating the unemployment due to the rapid adoption of labor-saving machinery. Some nations, such as Germany and

¹⁴ See *World Economic Survey, 1932-1933* (League of Nations, Geneva, 1933) p. 106 and *Ibid.*, 1933-1934, p. 163

Italy, want the women to remain out of industry. All states virtually see the need of shortening the working day.

A few states here and there want to confiscate wealth and to support the poor breeding much as they please with the proceeds of such confiscation. Yet even Russia apparently has abandoned the effort to break up the family and has made divorce difficult by increasing its cost. No nation could successfully enforce a "birth strike," but a nation can regulate conditions of marriage, discourage large families, and prevent the increase of the defective population, as Germany is doing. Radical methods are necessary if we are to solve the unemployment problem.

Even before the World War, of course, unemployment was found, apparently being a characteristic feature of the modern industrial life. Yet prior to the war five per cent was considered a normal percentage for most nations, England regarding 4.5 per cent as the approximate rate. In most countries of the world ten per cent was considered a high figure. Yet no European country had fewer unemployed in 1931 than in 1925 and some had several times as many. Recently the unemployment of one-fourth to one-third of the wage-earners has been characteristic for some countries.

The heavy unemployment in the building trades is due to curtailment of things regarded as less necessary and foreshadows a housing crisis similar to that resulting from the World War. Essential industries such as foods naturally suffered least. The unemployment in printing is surprisingly small, but people will read and in European countries some students buy textbooks.¹⁵ The European nations in April, 1936, probably had ten to twelve million unemployed and the world as a whole fifty million, chiefly in the so-called highly developed, cultured, and rich countries.

Even prior to the World War the question of housing reform was important. Included in the problem were improved sanitary arrangements, heating, ventilation, and the establishment of good suburban homes. During the bitter struggle materials and labor were needed for other things; hence the

¹⁵ See *World Economic Survey, 1933-1934*, p. 173, for interesting tables on unemployment.

building program was checked. In Belgium perhaps a fifth of a million homes were needed, in Great Britain nearly a million were demanded, and in Germany more than a million were needed. To meet this difficulty three different types of measures were used.

One measure was the legal suspension of rent payments until after the war and the prohibition of rent increases. Great Britain, Russia, Rumania, Hungary, Denmark, Norway, Italy, Germany, Austria, Holland, Switzerland, and Sweden enacted such measures, 1915-1917. Other countries followed this policy after the war. Soon, nevertheless, some of the countries were compelled to repeal this legislation, for otherwise landlords would have allowed their buildings to decay.

A second type of regulation was the control of all places of abode. In central Europe especially this plan was followed. Space was rationed carefully, residence permits were required, and special authority had to be obtained before dwellings could be changed into commercial houses. The Soviet authorities of Russia even municipalized houses. In western Europe, Great Britain and France particularly, the governments did not go that far, but the landlord's power was restrained considerably.

The third type of legislation was state financial assistance in the building of homes. Great Britain, France, Belgium, Holland, Italy, Germany, Austria, and Czechoslovakia all passed laws of that sort, 1919-1924. Help was given in the erection of small houses which were required to measure up to certain standards. Aid consisted of tax remissions, loans of public funds, or outright gifts. Local authorities, private individuals, or building societies would carry on the work. In England, Germany, and Italy particularly building guilds were used. Cooperative building societies, especially in France, Germany, and Switzerland, have been very successful.

In carrying out these financial programs, however, the governments encountered serious difficulties. By October, 1924, more than a fifth of a million houses had been completed in England at a cost of nearly forty million dollars. In 1923 the government began to give flat rate subsidies for each house built. This measure had fair success, but it did not

prevent the houses from being sold. That defect was remedied in 1924 by requiring that government aid be given only in the construction of houses that were to be let. Difficulties similar to those in England were encountered in other countries. Housing is, therefore, likely to remain a serious problem for some time. The world-wide depression has, of course, forced governments to trim budgets as much as possible, expenditures not regarded as essential thus being dropped.

Labor Organizations in England.—Real labor organizations, occasioned by unsatisfactory working conditions and partially responsible for the labor legislation, are a product of the nineteenth century, for prior to 1824 they were generally contrary to the common law, general statutes, and special laws. Acts judged penal offenses were: agreement to work only for certain wages or at specified times; combinations to increase wages, to change hours of work, and to lessen the amount of work; attempts to interfere with anyone's right to hire himself out or to leave a job; and presence at or support to a meeting considering wages, hours, or other conditions of labor.

As the result of long agitation, the Act of 1824 was passed. It repealed thirty-four laws, covering a period of time of more than five hundred years, and for the first time law allowed workmen in a peaceful and voluntary way to form combinations

to obtain an advance, or to fix the rate of wages, or to lessen or alter the hours or duration of the time of working, or to decrease the quantity of work, or to induce another to depart from his service before the end of the time or term for which he is hired, or to quit or return his work before the same shall be finished, or, not being hired, to refuse to enter into work or employment, or to regulate the mode of carrying on any manufacture, trade, or business, or the management thereof.¹⁶

Fearing that this legislation had gone too far, Parliament took a backward step in 1825, the Act of 1824 being repealed but the rescinding of the early restraints being allowed to stand. Workers, consequently, still could meet lawfully and could consult concerning wages and hours of work, but any

¹⁶ Bland, A. E., Brown, P. A., and Tawney, R. H. *English Economic History. Select Documents*, pp. 633, 634.

act of violence or intimidation was punishable by three months' imprisonment at hard work.

This legalization of unions, accompanied by the growth of the factory system, led to a big increase in numbers and in strikes. The Grand Consolidated National Trades Union, which had no dues and which sought an eight-hour day through a general strike, had, within six months after its organization in 1834, unions and clubs with a membership of over a half million, but its career was like that of Jonah's gourd, its end being hastened, not by the sun, but by the conviction of half a dozen Dorchester laborers for administering an unlawful oath. From 1845 to 1875 unions increased rapidly, county, sectional and national organizations in particular industries being formed. Trades councils, or joint committees representing the various unions in a given city, also came into existence, the first permanent one being formed at Liverpool in 1848.

From 1871 to 1876 three important acts were passed affecting labor. Trade unions in restraint of trade were not necessarily unlawful and no member could be prosecuted for conspiracy unless the act was illegal when committed by him as a single individual. Unions were protected in their right to hold property and to collect funds, but could not use the courts to enforce their acts or to collect their funds. A fine of twenty pounds or three months' imprisonment at hard work was prescribed for maliciously breaking a labor contract when there was reasonable ground for believing that valuable property might be destroyed or that life might be endangered.

Although fluctuations, of course, occurred, membership, but not unions, increased rapidly after the laws of 1871, 1875, and 1876. Growth was threatened, however, when the Amalgamated Society of Railway Servants was fined twenty-three thousand pounds for inducing employees to break their contracts and to do violence to the property of the Taff Vale Railway Company in 1900. If that decision stood, the treasury of every labor union in the country would be in danger, for damages could be collected from unions. It did not stand. The Act of 1906 forbade any court to entertain actions against trade unions, or their members or officials for "any tortious

act alleged to have been committed by or in behalf of the trade unions," thus exempting them almost altogether from legal action.

In the Osborne Judgment, 1909, however, appeared another grave danger to labor. Prior to 1911 members of Parliament did not receive pay for their services and the only way by which laborers could afford to serve was on the payment of a reasonable sum from the union funds. A porter named Osborne objected to a union rule requiring a small proportion of all salaries for the maintenance of labor members in the House of Commons. The highest court upheld Osborne's contention, thus making the support of labor members very hazardous. Although the situation was eased by the passage of a measure in 1911 granting all members of the House of Commons a salary of four hundred pounds a year, new legislation in 1913 declared that unions could use their funds for political purposes provided the decision to do so came by secret ballot and provided further that no one was compelled to contribute against his will.

Membership, thus encouraged, rose, with various fluctuations, to nearly four million in 1914, the greatest strength being in mining and quarrying, shipbuilding and metal engineering, textile manufacturing, building, and railway, dock, and various transport trades. Women trade unionists numbered more than a third of a million.

The union funds, to be sure, came largely from membership dues which normally varied from seven shillings to four pounds yearly. These funds were expended largely for benefits and operating expense. Thus, for the ten years ending in 1906 more than two-fifths of all expenditures went for friendly benefits, over a fifth for unemployment benefits, about a seventh for dispute benefits, and the balance for operating expenses.

During the war unions developed rapidly, the membership passing eight million in 1919. Rural labor, too, organized rapidly, approaching a third of a million at the high point in 1920. By 1920, moreover, three-fourths of a million of the salaried classes, because of rising living costs and falling incomes, had gone into unions, and some of those unions began

to develop working-class sympathies. The peak of labor's strength came in 1920 when the 215 unions in the Trade-Union Congress had a membership of more than six and a half million. The Triple Industrial Alliance,—miners, railway employees, and transport workers,—failed in attempted general strikes and with unemployment, so marked in 1921 and following, organized labor declined in numbers. Since the war the tendency toward concentration has been especially marked, nine-tenths of all members in recent years being in one-sixteenth of the unions.

Industrial unionism, or the bringing together of all workers in the same industry, has tended to increase, and employment unionism, somewhat similar to employers' organizations in that it may bring together such dissimilar elements as municipal and cooperative workers, has made an appearance. The powers of the Trade Union Congress, which includes about four-fifths of all trade unionists, have been increased. And with the growth of large organizations the problem of a democratic government is entering the labor movement.

Labor Organizations in France.—During the early period of the Revolution all labor organizations in France, as we would suppose from the dearth of labor laws, were prohibited, the law in 1791 forbidding all gatherings of workmen to discuss matters relating to work but specifically exempting chambers of commerce which meant employers. Journeymen's associations, friendly societies and societies of resistance, nevertheless, managed to exist. The weavers of Lyons date from 1823 and the smelters and printers of Paris date from 1833 and 1839 respectively. After 1860 labor organizations gained an impetus hitherto unknown. In 1864 the government, consequently, legalized strikes and combinations for strike purposes and four years later the minister of commerce and public works announced that he would thereafter tolerate unions exactly as he had been tolerating employers' organizations. There was, of course, as a result of this implied toleration a growth in labor organizations, but not until 1884 were workmen's unions given full legality and authorized to form federations.

The many French labor unions and the numerous divisions

thereof were for the most part brought together in the General Confederation of Labor in 1902. That organization early sought to obtain the eight-hour day by means of a general strike. It, like the Marxian Socialists, believed in a bitter and uncompromising class war. Its avowed methods were the general strike, boycott, and sabotage. The war tremendously increased its strength which rose from two-fifths of a million in 1913 to two and two-fifths millions in 1920. Under the influence of the extreme element the General Confederation attempted a general strike in May, 1920. The government took energetic measures, imprisoning some of the leaders, the public opposed, and the membership declined half before the year was over. Those who sympathized with Moscow undermined the General Confederation, finally forming a union of their own and being formally expelled. This action was hastened by the legal but temporary dissolution of the General Confederation for law violations by the government in October, 1920. The government has refused consistently to acknowledge the right of its employees to form unions on the ground that it can not concede them the right to strike, but they do riot over salary reductions, as in August, 1935.

Since 1884 agricultural unions have been legal. They increased little during the war period, the strength of 1,083,000 in 1920 representing a gain of only a tenth or thereabouts over 1913. All other unions, notwithstanding, had shown marked gains in this period. Non-manual workers, as in England and elsewhere, formed combinations as never before because of their shrinking pay envelopes. But since 1920, as just implied, membership in unions has declined. Various labor unions participated in the early 1934-rioting and bloodshed in Paris and the General Confederation of Labor called a one-day general strike.

Believing that the success of the Popular Front and the premiership of Leon Blum meant a new era for labor, the workers attempted a general strike late in May, 1936. It lasted about two weeks and involved about one million workers. The workers won, governmental pressure being effective. The employers, on June 8, agreed to raise wages from seven to fifteen per cent, to recognize the laborers' right to join unions

and to bargain collectively, to use a forty-hour week, and to give pay during vacations. By mutual consent the principle of the "open shop" was retained. An increase in the prestige and membership of the General Confederation of Labor, at least temporarily, may now be expected.

Labor Organizations in Germany.—The beginnings of trade unionism in Germany date back to about the middle of the nineteenth century, perhaps the earliest trade unions being the few socialist unions established by two followers of Lassalle in 1868. The period of repression from 1878 to 1890 led to the dissolution of about 332 societies, ninety-five of which were trade unions. From 1890 to 1905 labor unions increased in number and in power, gradually winning a recognized position. By 1914 all workmen except agricultural laborers, domestic servants, and seamen could form combinations.

The three chief classes of trade unions existing in that year were: the Social Democratic or free unions, the Hirsch-Duncker unions, and the Christian trade unions. The membership of the first increased from little more than a quarter of a million in 1890 to more than two million in 1914. Most of the members were socialists, but they resented and repulsed efforts of the Social Democratic Party to control the union. The Hirsch-Duncker unions asserted the unity of interests of employers and employees and excluded socialists after 1876. They did at times, however, conduct strikes of considerable importance. Their strength was largely in Silesia and eastern Prussia and their members were only about a tenth as numerous as were those of the Social Democratic unions. The Christian unions, with about three times as many members as the Hirsch-Duncker unions, were strong in the Catholic industrial and mining regions of the Rhine Valley and Westphalia. In common with the Hirsch-Dunckers they repudiated the doctrine of a class struggle. The Polish unions, in the colliery and iron districts of Westphalia, and the employers' unions found chiefly in the engineering trades each had about as many members as the Hirsch-Duncker unions. About four-fifths of all organized workers were in the Social Democratic unions; the chief dividing issue was socialism.

During the postwar period union labor in Germany increased in a marked way. On November 15, 1918, the government issued its famous eight-hour day order and recognized the trade unions as the only representatives of wage-earners and salaried employees. In June, 1919, the General Federation of German Unions, a merger of all socialist unions, was voted and in 1923 it had about nine million workers, or two-thirds of the total German union strength. In 1919 also the Catholic unions, with a membership close to two million, were merged into the Federation of Christian Trade Unions. The Hirsch-Duncker unions, with a membership of about two-thirds of a million in 1923, formed the Federation of Liberal Hirsch-Duncker Unions of Germany. In 1923 total German union strength was estimated at thirteen million. Salaried employees, as in other countries, also formed unions. About one and two-fifths million salaried employees and nearly nine hundred thousand public officials were then in unions. Although German agricultural labor could not legally organize prior to 1919, within a year membership was seven-tenths of a million. In 1924 membership of German trade unions was approximately equal to that of Great Britain and the United States combined. In 1933 Hitler suppressed the socialist unions and others, being unwilling to countenance anything which might obstruct his power. By the new labor code, effective May 1, 1934, unions were destroyed, strikes were prohibited, and collective bargaining was abolished. In place of labor unions Social Honor Courts and Leadership in Business, by employers, were provided. Thirteen trustees appointed by the government were to take care of industry and to preserve peace. Each shop leader was to develop a code which might set a wage scale, including a minimum wage with leeway for higher pay for better work. The court was for the trial of both employers and employees who violated the ethics of the code. The trustees can impose fines and prison terms; the Social Honor Court can do likewise and also depose a leader and discharge a follower. Employers are required to give four weeks' notice of mass dismissals and shutdowns. In the case of individual dismissal the employee may sue for

reinstatement or a maximum settlement of one-third of his yearly earnings.¹⁷

Trade Unions in Russia.—Russian labor first revealed its strength in the general strikes of 1905. It increased its strength following the revolutions of 1917. Although trade union membership was nearly seven million in January, 1922, within a year, following the dropping of compulsory membership, it had declined to four and a half million. The strongest unions are the railway employees, the state workers, metal employees, and textile workers. Village laborers and peasants likewise have formed unions. In the unions, too, are many women, more than one-fourth of the total and over half in the textile industries, emphasizing the just slogan "Equal pay for equal work" and holding responsible positions. Women likewise perform the roughest work, often digging ditches under male foremen.

The trade union is an integral part of Soviet economy. Its basic unit is a factory, workshop, office, or other place of employment for laborers. The workers of this unit elect delegates who in turn elect and supervise a factory committee. If the enterprise is a large one, a representative of the factory committee will be placed in each department of the business. The factory committee, usually elected for a year, appoints various committees such as a protection of labor committee, a production committee, and a cultural educational committee. Over the factory committee are the rayon committee, the oblast committee of greatest local significance, Committee of Union Republics, and the All-Union Central Committee. The horizontal structure of trade-unionism, like the vertical structure, is based upon the politico-economic divisions,—namely, industries of local, Republican, and Union significance. Each division holds a congress of trade unions,—local every eighteen months and the All-Union Congress of Trade Unions every twenty-four months. Every local, Republican, and Union Congress chooses a Trade-Union Council and that body cares for the union interests before any governmental body, and selects, when necessary, trade union representatives on governmental commissions and committees. The highest authority, the All-

¹⁷ See the *Literary Digest*, January 27, 1934, Vol. 117, No. 4, p. 16

Union Central Council of Trade Unions, merely acts in the general interest of trade unions and unifies the activities of the various unions. The organization is thus highly centralized. More than eleven million workers, in 1930, were enrolled in twenty-three unions.¹⁸ In 1934, however, nineteen million workers, or four-fifths of all workers, were enrolled in unions.

Organized labor, nevertheless, may have declined in effective strength with the development of compulsory labor. S. Konovalov in "Compulsory Labor in Russia" points out that forced labor is employed as a punishment for offenses, that it is "concealed under a cloak of imposed services," that it operates "through limitation in free choice of work, and restriction with regard to changing of occupation and the right to refuse work of certain character," refusal of work perhaps drawing loss of employment for six months and branding in the work book as "a malicious disorganizer of industry."¹⁹

The worker in Russia criticizes his superior without fear. Partly because he is a voracious reader he is making marked progress. Sidney Webb in "Freedom Under Soviet Rule" declares that the advance in freedom of life, irrespective of the men, in the last "fifteen years has certainly been vastly greater in quantity than the world has ever before witnessed in a similar period." Contrary to the statement of Konovalov he says: "The individual American or Briton is in the vast majority of cases as much compulsorily subjected to an extremely coercive environment as the individual inhabitants of the U. S. S. R."²⁰

Labor Organizations in Italy.—Although organization had scarcely started prior to 1890, labor was organized better in 1914 in Italy than in any other south European country. It was very socialistic. In 1914 the unions fell into three main groups,—Catholic, syndicalist, and "neutral," or socialist. The first group, the weakest, consisted chiefly of scattered associations. The second group emphasized class war, denounced parliamentary action and cooperation with employers, and urged the use of the boycott, the general strike, and sabotage.

18 See Hoover, Calvin, B. *The Economic Life of Soviet Russia*, pp. 246-281.

19 See the *Review of Reviews*, July, 1931, Vol. 84, pp. 73, 74.

20 See *Current History*, January, 1933, Vol. XXXVII, pp. 399-407.

Many agricultural and governmental employees belonged to the syndicalist unions which were united by a central organization. About five-sevenths of the union laborers in 1910 were in the socialist unions which were grouped into provincial organizations and after 1906 into a General Italian Confederation of Labor. Membership was open to men and women alike on equal terms.

In 1919 the Communists gained control of the Socialist Party, becoming with more than 150 seats the largest single party in the Chamber of Deputies. Labor difficulties, including an attempted general strike, were common in 1920, and industrial groups seized and attempted to open factories in the northern cities, being encouraged by the Giolitti government which followed a Fabian policy. The factory councils on the Soviet model and labor operation of factories proved failures, but Italy was nervous with more than two thousand of the nine thousand communes in the hands of the Socialists. And so the professional classes, many soldiers and peasants, and students rallied to the support of Mussolini, the leader of the Fascist movement. In the fall elections of 1921 the Fascisti won twenty seats. When the extremists called a general strike in 1922, the Fascisti converged on Rome. The government surrendered and Mussolini became the real ruler of Italy, a position which he still holds.

Mussolini instituted terrorist methods against the trade unions. The strength of the General Confederation fell from two and a half million to less than a million. In April, 1924, the Socialist-Communist seats in Parliament fell to sixty-four. Mussolini has tried to substitute for the old labor movement trade corporations which include the employers as well as the employees and which substitute economic cooperation for the class struggle idea. The most important of these measures was a law enacted April 3, 1926. It recognized the labor corporations and invested them with the right of legally representing such varied categories as experts, employers, employees, landlords, peasants, professional people, and workers. Strikes and lockouts were declared illegal. Labor disputes were to be tried by labor tribunals which were attached to courts of appeal.

Labor Organizations in Other Countries.—Although labor unions now exist legally or under cover in all European countries, Austria and Switzerland were captured by the principle of combination prior to 1914 more than were most countries

CHART No. 31—STRENGTH OF COMBINED TRADE

AUSTRIA		UNIONS IN DEPRESSION	1932	719,126	1933	645,268
BELGIUM		UNIT—1,000,000		804,509		958,835
CZECHOSLOVAKIA				1,511,439		1,678,109
DENMARK				336,664		369,069
ESTONIA				21,622		
FINLAND				19,940		22,930
FRANCE				1,244,300		1,339,700
GERMANY				7,684,331		
GREAT BRITAIN				3,899,949		3,536,937
GREECE				72,000		69,000
HUNGARY				140,880		153,560
IRISH FREE STATE				146,361		153,812
ITALY				3,646,928		3,942,551
LATVIA		BULGARIA	1932	2,110	1933	18,918
LUXEMBURG		LITHUANIA		1,200		23,804
NETHERLANDS		MEMEL		936		34,384
NORWAY		PORTUGAL		8,830		18,048
POLAND		SOURCE—				724,453
RUMANIA		INTERNATIONAL LABOUR				779,053
SPAIN		YEAR BOOK				144,595
SWEDEN						154,923
SWITZERLAND						746,196
U.S.S.R.						738,899
YUGOSLAVIA						30,483
						27,748
						1,790,737
						660,419
						711,986
						265,191
						290,437
						16,504,000
						17,260,000
						44,854
						51,984

other than England, Germany, France, and Italy. In Austria a limited right of combination was recognized in 1869. Total membership in 1907, however, was little more than a half million and the strength in Hungary was only a fourth as

great as it was in Austria. The oldest existing Swiss labor organization dates back to 1838. In 1907, nevertheless, membership was not more than eight thousand for all unions. In Denmark, Norway, and Sweden unions were well organized and socialistic. For about ten years after 1893 Dutch unions increased rapidly, but the failure of a general strike in 1903 caused many unions to die. The work of reorganization began after 1908. The Belgian law of 1898 allowed the incorporation of trade unions only when their objects were non-political. But unions in 1914 were associated more or less with the Socialist-Labor, Catholic, or Liberal Party, generally the first.

The World War increased trade unionism, temporarily at least, more than forty-one million trade unionists being enrolled at the beginning of 1920, about thirty-four million in Europe. The membership in nineteen European countries for January 1, 1924, however, was estimated at little more than nineteen and a quarter millions by the officials of the International Federation of Trade Unions and the world membership was estimated at less than twenty-eight millions. The only European countries with a strength for orthodox unions estimated at more than a fifth of a million were: Germany, Great Britain, Austria, France, Belgium, Czechoslovakia, Poland, Sweden, Denmark, Italy, and Spain in the order named. Depression since 1929 and the repressive measures in Austria and Germany have furthered decline.

From 1919 to 1923 there were two groups of international labor and socialist organizations. One was the Amsterdam International Federation of Trade Unions, reorganized in 1919, and for the political side the Second International with headquarters at London. The "Two and a Half International" with headquarters at Vienna was a second. Both of these were reformist and in 1923 the two were merged. For Moscow, however, both the Second International and the Amsterdam Union were too pale. And so the Communists formed the Third International and the "Red" International Federation of Trade Unions.

SELECTED REFERENCES

Benns, F. L. *Europe Since 1914* (New York, F. S. Crofts and Company, 1934) Chapter XV.

Bland, A. E., Brown, P. A., and Tawney, R. H. *English Economic History. Select Documents* (London, G. Bell and Sons, 1915) Part III, Section IV,

Chamberlain, W. H. *Soviet Russia* (Boston, Little, Brown, and Company, 1930) Chapter VII.

Cole, G. D. H. *A Short History of the British Working Class Movement* (New York, The Macmillan Company, 1927) Chapters VI-IX.

Dawson, W. H. *Social Insurance in Germany* (London, T. Fisher Unwin, 1913) Chapters I and VI-IX.

Ogg, F. A. and Sharp, W. R. *Economic Development of Modern Europe* (New York, The Macmillan Company, 1926) Chapters XVII-XX, XXIV, XXV, XXIX, and XXX.

Webb, Sidney and Beatrice. *Industrial Democracy* (London, Longmans, Green and Company, 1920) Part III, Chapter IV.

Wolfe, Humbert. *Labour Supply and Regulation* (Oxford, The Carnegie Endowment for International Peace, 1923) Chapters VII-XV.

CHAPTER XXV.

GROWTH OF SOCIALISM

Nature and Objects of Socialism.—The revolution in industry was primarily English, but the revolution in thought was essentially French. The two are closely connected, however, because too frequently the evils resulting from changing methods and accompanying unemployment and low wages stimulated radical thought and the use of methods more violent than those commonly employed by labor unions.

The term *socialism*, perhaps coined by Robert Owen in England, in 1835, is hard to define. Most socialistic teaching, however, is fairly clear on two points: the abolition of private property as a means of capitalistic production and the extension of state ownership and control to the various agencies of production, distribution, and gain. Socialism would not entirely abolish private property. Because it would leave clothing, household goods, books, money, and possibly a house and a little ground, it differs from communism, which would have all property in common. Socialism differs from anarchy in that it stands for the extension of state control, whereas anarchy is the negation of all government. Some people confuse public ownership and social legislation with socialism. Public ownership is not socialism because it does not provide for socialistic distribution and does not abolish the leisure class and unearned incomes. Social legislation is not socialism because it does not seriously affect private property, present production methods, the present wage system, the leisure class, interest, and rent.

What briefly are some of the hopes and the fears in socialism? Socialism would substitute for the present planless society a scientific reorganization of production. Under so-

cialism the wage-earner ceases to be a wage-earner and becomes a partner, the employer may lose his fear of being crushed by unscrupulous giants, for the state provides an income for all, and professional people may suffer less worry as competition becomes less keen with the increase in agreeableness of agricultural and mechanical pursuits.¹ William Morris claimed for socialism the safeguarding and advancing of human welfare—healthy bodies, active minds, leisure, pleasant working conditions, and a beautiful world in which to live.²

Opponents of socialism insist that the labor theory of value is untrue, that the laborer does not produce all wealth, and that the masses are not wage-slaves. They likewise point out the defects in socialist production through the intolerance of reward and punishment and the virtual impossibility of distribution according to needs. Finally they insist that not only are socialistic theory and organization defective, but that socialism is unnecessary to industrial and social reform.³

Early French Socialists.—Baboeuf, an early French radical, held that the essential aim of society was happiness for all and that in order to obtain happiness equality was necessary. To obtain equality he held that the state should take over all property on the death of its present possessors. All necessary business would be conducted by officers elected by the people. Education was to be the same for all. Dress and food were to be alike with distinctions made for sex and age. These doctrines were voiced in his newspaper, *The Tribune of the People*.

The second of the Utopian Socialists, or proponents of absolute equality, was Étienne Cabet. In England he became acquainted with Sir Thomas Moore's *Utopia* and found inspiration for his *The Voyage to Icaria*. In this work the country was divided into a hundred provinces and each province was divided into ten communes. The streets were wide and straight and the gardens were beautiful. All sanitary and health precautions were taken. The working day was seven hours in summer and less in winter. The state owned the

¹ See Ely, R. T. *Socialism and Social Reform* (Thomas Y. Crowell Company, New York, 1894) pp. 123-128 and 139-142.

² See *Signs of Change* (Longmans, Green and Company, London, 1903) pp. 18-34.

³ See Williamson, T. T. *Readings in Economics* (D. C. Heath and Company, Boston, 1923) pp. 355-367.

large industries, regulated the building of homes and other phases of production, and divided the returns of industry equally among the workers. The inhabitants elected the officers who held much power. Men dressed alike. Even the women and the children had no variety except in colors. Marriage was monogamous, a preliminary courtship of six months being required. Education started at five and lasted until seventeen for the girls and a year longer for the boys. Cabet thought that a beginning of the ideal state could be made through minimum wage laws, the grounding of the children in the principles of communism, progressive taxation of the rich, and the exemption of the poor from taxes.

Saint Simon, 1760-1825, worked for the development of a social system in which man would obtain a reward dependent upon his works and in which not mechanical equality, but equal opportunity, would prevail. He wrote: "The golden age of humanity is not behind us; it is to come, and will be found in the perfection of the social order. Our fathers have not seen it; our children will one day behold it. It is our duty to prepare the way for them."⁴ Eking out an existence as a copyist for nine hours a day at a wage of two hundred dollars a year he undermined his health by attempting to work out his social system when he should have been sleeping. His former valet aided him, but died in 1810. For a while after that loss Saint Simon risked starvation, but his family finally gave him a small annuity. Shortly before his death he completed his three chief works, the *Industrial System*, the *Catechism of Industry* and the *New Christianity*. He urged the union of knowledge and industry, peace and cooperation, work for all and all at work. The new order was to be inaugurated not by violence but by peaceful persuasion. In the *New Christianity* he held that God had established the church, that the fathers of the church deserved honor, and that men ought to regard each other as brothers.⁵

Charles Fourier, 1772-1837, unlike Saint Simon, belonged to the common people, sought the laws of progress deductively, worked out a detailed social order for small communities,

⁴ Laidler, H. W. *A History of Socialist Thought* (Thomas Y. Crowell Company, New York, 1927) pp. 62, 63

⁵ See *Ibid.*, p. 63.

and based his system on logic and science. The heart of his plan was "the all-pervading power of attraction." Obstacles, he urged, must be removed and a social organization giving free play to the passions must be obtained. The passions, twelve in number,—the five senses, friendship, love, the family feeling, ambition, planning, desire for change, and desire for unity,—"combine into one supreme passion of love for others, united in society." Harmony, the necessary prerequisite to his plans, could be obtained, he believed, by having men and women live together in phalanxes, or communities of four hundred to two thousand. They would occupy a large central building called a phalanstery and busy themselves primarily with agricultural pursuits. The citizens were to be grouped according to their tastes, small units of seven to nine being called a "series" and the larger units being designated as "groups." The workers had their food prepared in the large kitchen, dined in the common hall, and had central stables and warehouses. Fourier believed that between his eighteenth and twenty-eighth birthdays a man would produce enough to live on comfortably for the remainder of his years. The proceeds of labor were to be divided in such a way as to give a liberal minimum to all over five years of age with the remainder assigned to labor, capital, and talent in the proportion of five-twelfths, four-twelfths, and three-twelfths respectively. The head of a phalanx was an elective officer known as a unarch, and the chief of the world phalanxes with headquarters at Constantinople was to be designated as omniarch. Fourier was a prophet of conservation, a friend of the laborers, an advocate of machinery, and a real influence in the securing of sanitary reforms and factory laws.

Two Mid-Century French Socialists.—Louis Blanc, 1813-1882, was born in Spain and educated in Corsica and France. At the age of twenty-six he founded the *Revue de Progres* and in it published his *Organisation du Travail* in 1840. He wrote admirable histories of the years 1830 to 1840 and became a member of the Provisional Government of 1848, insisting upon government workshops and a ministry of labor and progress. Suspected of insurrectionary tendencies by Napoleon III he fled to England where he resided until 1870. The

next year he was elected to the National Assembly, but lost the favor of his group, the Extreme Left, by opposing the rising of the Commune of Paris and favoring the law against the International Workingman's Association.

Blanc believed that men should be considered as members of one large family, a democratic institution. To realize this ideal society everyone should be assured work in social workshops "destined to replace gradually and without shock individual workshops." The state was to be the banker for the poor, lending credit interest free to the workshops and administering them for the general welfare. The state finances were to be obtained from general taxation and from revenues secured from railways, mines, banks, and insurance companies. The workshops were to be grouped into a federation and to organize an insurance company with a common fund sufficient to meet individual losses. Capitalists were to be welcomed, paid interest on their investment, and to receive a suitable wage for their work. Private workshops were free to continue their careers. Blanc rejected the idea of the equality of talents and urged the formula, "From each according to his ability, to each according to his needs," thus contributing an idea of high merit in the field of distributive justice. The government to quiet the popular clamor created workshops in 1848, but by appointing Emile Thomas, Blanc's bitter enemy, to the supervision of the workshops intentionally assured their failure.

The most elusive of the Utopian Socialists was Pierre-Joseph Proudhon, 1809-1865. In a book, *What is Property?* published in 1840, he attacked the iniquity of private property and urged the doctrine of labor time as the correct measure of value. Six years later in his *Système des Contradictions Economiques ou Philosophie de la Misère* he attacked both socialist and communist theories, but did not develop a constructive philosophy. Proudhon's society was to be based upon liberty, equality, and fraternity. As a step in realizing this ideal society Proudhon wanted a strong national bank which would issue checks for the various commodities placed on deposit. The checks would buy anything which required the same amount of labor. Bank capital was to be obtained by prop-

erty taxes and progressive taxation of the salaries of government officials. The interest rate, he believed, was normally zero and by bank assistance would be zero, thus eliminating profits and rents. Proudhon's ideal society would be without government, without private property which he regarded as theft, without proprietors whom he regarded as thieves, but with private possession secured by labor and with "the present inequality in the talent and capacity of men. . . reduced to an inappreciable minimum."⁶

Later Socialists.—After the Revolution of 1848 and the death of Proudhon revolutionary thoughts and practices seemed to shift to other parts of the European world. The movement had, however, a renaissance during the Franco-Prussian War of 1870-1871, even if the attempted communard government was repressed with terrible cruelty and the ablest surviving leaders were exiled. The return of Jules Guesde in 1876 aided in the growth. Guesde was a socialist of the Marxian type, that is, one who believed that only through a violent overthrow of the present order could socialistic aims be attained. Marxians refused to compromise, but the Opportunists or Revisionists were willing to take gains as they could win them from the present governments.

The greatest leader of the Opportunists was Jean Leon Jaurès, 1859-1914. Jaurès, well educated and brilliant, became professor of philosophy at the University of Toulouse where he remained until 1885 when he was elected to the Chamber of Deputies as a radical republican. Four years later he failed of reelection. In 1893 he was once more returned, this time as a socialist. Possessed of a wonderful physique and great oratorical powers he soon became an international figure. In 1901 he published his *Historie Socialiste*. In 1902 he supported the miners of Carmaux in a great strike and was sent to the Chamber of Deputies as the Albi member. In 1904 he founded *L'Humanité*, a socialist paper. He warmly defended the persecuted Dreyfus and urged the acceptance of a cabinet position by Millerand, thus multiplying the already numerous splits in the ranks of the French socialists. At Amsterdam, in 1904, Jaurès, debating against Bebel, argued

⁶ See *Ibid.*, pp. 54-87, for an excellent discussion.

that opportunism was not only permissible but necessary in France where the wage-earners already enjoyed a high measure of power. Out-voted but not out-argued he submitted and loyally supported the Unified Socialist Party in 1905. In 1911 he published his *L'Armée Nouvelle*. Jaurès was a consistent advocate for a mutual disarmament agreement with Germany. He likewise favored a general strike against war provided the strike could be made international in scope. His efforts to avert the impending war led to his assassination, July 31, 1914, by a misguided patriot.

Socialism in French Politics.—The Unified Socialist Party declared that it was a class party, that its members must refuse to support any means whereby the power of capitalistic governments would be perpetuated, and that the interpretation of its executive committee was final. In 1910 its vote was one and a fifth millions and its deputies numbered 105. Socialism tended to pervade all classes of people, but it was of the theoretical rather than of the practical type.

When the World War began, socialists in France, as well as in England, Belgium, Germany, Austria, and elsewhere, supported nationalism, but after two and a half years of disillusionment everywhere they began to demand peace. On the whole, the war caused a decrease in membership and a movement toward the Marxist position. After the war ended strength began to increase, the elections of 1924, 1928, 1932, and 1936 showing the power of the Radicals, the so-called Popular Front in 1936 having 381 out of 618 deputies. Leon Blum, the leader of the socialists, the largest bloc in the Popular Front, became premier. In general the French socialists favor the abolition of private ownership and the present wage system by peaceful methods if possible and if not by forcible action. In the Paris riots of February 6-8, 1934, occasioned by the bank scandal of Bayonne in which M. Stavisky may have been protected by politicians, Communists rioted with Republicans, Monarchists, and War Veterans as well as separately. To further their aims the French socialists or radicals advocate universal suffrage, amnesty for war offenders, fair proportional representation, reduction in hours of labor, minimum wage laws, full recognition of all labor unions, use

of excess profits taxes, a capital levy, and government control of insurance, banking, water-power, shipping, mining, transportation, and other vital agencies.

Karl Marx, 1818-1883.—Karl Marx was born at Treves, in southeastern Germany, on May 5, 1818. His father was a Jew, a jurist, and his grandfather was a rabbi. When Karl was six years of age the family accepted Christianity. At the age of seventeen the boy entered the University of Bonn, but the next year he transferred to Berlin University. In 1841 at the age of twenty-three he obtained the degree of doctor of philosophy from the University of Jena. At the age of twenty-four he was asked to accept the editorship of a liberal paper, the *Rheinische Zeitung*, and this new position led him to the study of economics. He soon resigned the editorship in order to continue more effectively his studies. By the time he was twenty-six he had become a confirmed socialist. In October, 1843, he and his young wife went to Paris, where he was to edit the Franco-German Year Books, but one number of which appeared, in the spring of 1844.

One of the articles in that book was contributed by Friedrich Engels, the son of a wealthy Barmen manufacturer. He entered his father's business before he completed his education, becoming the agent of his father's firm at Manchester. At first Engels and Marx did not see alike, but the article by Engels in condemnation of the economic system on the ground of injustice was the beginning of a friendship which allowed the impracticable and proud Marx to continue his literary career.

At the request of the Prussian government Marx was driven out of Paris. He went to Brussels, where he occupied himself in reading the various books on political economy made available to him by Engels. His *Misère de la Philosophie*, published in 1847, was an attack on Proudhon whose acquaintance he had made in Paris. The doctrines of the book found better expression in the now noted *Communist Manifesto* which Marx and Engels were commissioned to prepare by the Second Congress of the League of Communists. The chief feature of that document was the contribution of Marx.⁷

⁷ See *Communist Manifesto* (Charles H. Kerr and Company, Chicago, 1912) pp. 7, 8, for a statement by Engels.

The first part of the *Manifesto* was devoted to the rise of the capitalist class. Capitalists, the authors believed, had exploited the wage-earners, had developed world interdependence, had contributed centralization, and had made industrial crises. They had, moreover, called into being on a large scale the wage-earning class. Without property and with increasing misery these proletarians were the inevitable grave diggers produced by the capitalists.

The second part of the *Manifesto* discussed the relation of the wage-earners to the communists. That relation, the authors contended, was one of identity. They argued that national antagonism between races was vanishing and that working men had no country. They insisted that the first step in the revolution was the supremacy of the working classes. Then they stated concisely some of their aims, among them being the abolition of property in land, heavy progressive taxation, state control and centralization of banking, transportation, and production, abolition of child labor, and the free education of children in the public schools. In time, they contended, the working class would abolish its own supremacy, for all class distinctions would disappear.

In the third section the authors of the *Manifesto* criticized the different forms of so-called socialism and in the last section they urged a forcible revolution:

The Communists disdain to conceal their views and aims. They openly declare that their ends can be attained only by the forcible overthrow of all existing social conditions. Let the ruling classes tremble at a Communist revolution. The proletarians have nothing to lose but their chains. They have a world to gain.

Working men of all countries, unite!

With the defeat of most of the uprisings in 1848, the chief officials of the Communist League were arrested, and shortly after they were sentenced to prison the League was dissolved. Banished from Belgium Marx accepted an invitation to France. But soon he and Engels were back in Germany urging revolution in the columns of the *Rheinische Zeitung* which failed after a year and a half of struggle.

Marx spent the last years of his life in poverty in England. Wilhelm Wolff in the sixties left him a legacy of £800 and Engels gave him £350 a year. In 1859 he published his *Critique of Political Economy* which formulated the economic interpretation of history and his widely discussed theory of value. In 1863 he made the famous "Inaugural Address" to the First International. The address sketched the history of the English workers from 1825 to 1864 and the development of trade and commerce between 1848 and 1864. Growth, he contended, was confined to the propertied class. In 1867 Marx published the first German edition of *Capital*, a book of about eight hundred pages on the "critical analysis of capitalist production." He urged that as production increased, capital concentrated in fewer and fewer hands, that the demand for labor decreased, and that unemployment, with its accumulation of misery, developed apace. Capitalism, he believed, was slowly digging its own grave.⁹

After 1875 Marx suffered constantly from bodily ills, but he continued his studies and while at Karlsbad in 1877-1878, he collected the material for the second volume of *Capital*. Famous watering places, however, failed to effect a cure, and in March, 1883, he died and was buried at Highgate Cemetery, London. Friedrich Engels and William Liebknecht hurried from Germany to attend his funeral and vied with other admirers in extolling his praises.

"The three cornerstones of Marxian theory," writes Harry W. Laidler, "are the materialist or economic interpretation of history, the doctrine of the class struggle and the concept of surplus value."¹⁰ By the first Marx meant that the economic factors, or the making of a living, moulded ethical, intellectual, political, and social relationships. By the second point, or the class struggle, Marx meant that struggles or strife would continue until the workers controlled society and themselves became producers emancipating all from "exploitation, oppression, class-distinction and class struggles." By the third point, or the theory of value, Marx meant that labor was the source of value. If a man, so he argued, sold

⁹ See *Capital* (Charles H. Kerr and Company, Chicago, 1908) Vol. I, pp. 836, 837.

¹⁰ See *A History of Socialist Thought*, p. 199, also pp. 149-210.

his labor to a capitalist for three dollars a day and in six hours added to the cotton or wool a value of three dollars, or the equivalent of the wage, there would be no surplus value or produce for the capitalist, but if the employee worked twelve hours the capitalist would pocket through exploitation three extra dollars. When he sold for eighteen dollars a suit whose raw material cost twelve dollars and whose labor cost three dollars, the extra three dollars, so Marxists insist, represent a surplus value or profit of three dollars. The value of laboring power, Marx held, was distinguished from other commodities by the physical element or self-perpetuation on the one hand and the traditional standard of life on the other, but that no law determined the minimum of profit whose actual rate was settled by a "continuous struggle between labor and capital." Marx urged that instead of the conservative motto, "A fair day's wage for a fair day's work," laborers should shout, "Abolition of the wages system."¹¹

Growth of Socialism in Germany.—The man who really organized socialism was Ferdinand Lassalle, 1825-1864. Lassalle, the son of a wealthy Breslau wholesale merchant, specialized in philology and philosophy. His first book, *The System of Acquired Rights*, published in 1861, was termed by Savigny, a famous jurist, as the best legal treatise since the sixteenth century. His theories came from Rodbertus¹² and Marx and his speeches have been called "eloquent sermons on texts taken from Marx." He urged the formation of cooperative societies for production and the organization of labor upon political lines. Universal suffrage thus being a necessity in 1863 he formed the Universal German Workingman's Association with the avowed object of gaining direct and universal suffrage, but a year later he lost his life in a duel over an unfortunate love affair.

About the time of Lassalle's death Marx sent one of his ablest lieutenants, William Liebknecht, to South Germany to form Marxian societies. Liebknecht soon found August Bebel. Liebknecht was a well educated descendant of Martin

¹¹ See Marx, Karl *Value, Price, and Profit* (Charles H. Kerr and Company, Chicago, 1901) pp. 57-126.

¹² Rodbertus, 1805-1875, believed that the socialist ideal would work itself out gradually, five centuries being necessary to educate the people up to the socialistic ideal.

Luther. In exile at Paris he had become acquainted with Marx and Engels. Bebel, 1840-1913, was a turner by trade, a man acquainted with abject poverty and the soul of the workers. Bebel became president of the League of Workingmen's Association in 1867, but two years later that association was dissolved and the Social Democratic Workingman's Party was organized at Eisenach. The two groups—Marxian and Lassallian—had for a while seven representatives in the North German Diet.¹³ In 1875 the two rival organizations—Marxian and Lassallian—were merged at the Gotha Congress. The new name became the Social Democratic Party, but the natal day was May 23, 1863, the date of Lassalle's organization. The Lassallian group numbered about fifteen thousand and the Marxist group numbered nine thousand. Liebknecht and Bebel, however, became the leaders and the Marxist doctrines triumphed.

From 1878 to 1890 Bismarck attempted to stop socialist growth by the inauguration of social insurance and by stern repression. When repression was dropped in 1890, the vote was nearly four times as large as it was in 1878. By 1912 the vote was about one-third of all votes cast and socialist representatives numbered 110 out of 397. Had the electoral circles or districts been fair, the representation would have been even larger, but in Prussia, the bulwark of conservatism, the average number of voters per district was 121,000 whereas in Berlin, a radical stronghold, it was 345,000.

The Erfurt Program, 1891, voiced specific demands, among which were: universal ballot suffrage, direct legislation, use of militia in place of a standing army, freedom of speech and assembly, equal rights for women, acknowledgment of religion as a private matter, secularization of education and a large measure of help for worthy students, free administration of law by popularly elected judges, compensation for unjustly punished people, free medical treatment and burial, heavy taxes on the wealthy, an eight-hour working day, improved working conditions, and the prohibition of child labor under fourteen.

Bernstein, 1850-1932, has been the most prominent socialist

13 See Laidler, H. W. *A History of Socialist Thought*, pp. 288, 289.

in recent decades. He was born in Berlin in 1850, became a bank clerk at sixteen, and joined the Social Democratic Party in 1872. Six years later he resigned his bank position to accept a private secretaryship, but the Anti-Socialist Act of that year caused him to leave Germany and he was an exile for more than twenty years. Deported from Switzerland he went to London in 1888. His newspaper articles led to bitter controversies. When Bernstein returned to Germany about 1900, he became the recognized leader of the revisionists. His group contended that the collapse of the capitalist system would not occur in the immediate future, that social evolution was gradual, that the class war was not so acute as Marx and Engels had contended, that concentration proceeded at varying rates in different industries, that a social reaction against the capitalist class already was apparent, and that the best prospects for permanent success lay in a gradual but constant advance rather than in a catastrophic crash. Kautsky and others opposed these contentions vigorously, but the idea that the movement was everything and the goal nothing has continued to gain strength.

Social Democrats, consequently, began to take part in the government and to attain some of their objects through legislation. The Christian Socialists, originally Protestant, were opposed little by the government, which actively used the Socialists of the Chair, that is, university professors, in obtaining facts for its social legislation.

After the Revolution of 1918 a Communist party, allied with Moscow, arose in 1920. The occupation of the Ruhr region by the French increased its strength. In 1932 the Communists polled over 5,278,000 votes and won 89 seats in the Reichstag, increased on November 6 to one hundred. Social Democrats, though they had suffered serious reverses, were still the strongest party in the Reichstag until 1932 when their membership fell to 133 in comparison with the 230 of the National Socialists. The next year with the rise of Adolph Hitler to power the Social Democrats disappeared as a party.

Robert Owen of England.—Although England had numerous pioneering radicals, the early history of English socialism is really the biography of Robert Owen, who was born May 14,

1771, in North Wales. The boy had little opportunity for schooling, being apprenticed at ten. His liberal employer, however, had a good library and young Owen was allowed to use the books. After his apprenticeship Owen served various firms acceptably and when nineteen became superintendent of a large Manchester cotton mill which employed about five hundred men. Owen became a partner, but soon resigned and connected himself with another Manchester house. On one of his business trips for this house he met a Miss Dale whose father had a cotton mill in New Lanark, Scotland. Owen and his partners soon purchased that mill. Owen married Miss Dale and on January 1, 1800 began his work as superintendent of the newly purchased mill which employed more than two thousand workers.

In New Lanark most of the families had one room each and the children worked long hours without a chance for education. Owen improved sanitary conditions, reconstructed the workers' homes, increased their wages, established company stores where employees could buy at a saving of twenty per cent, reduced the hours of work, founded kindergarten schools, developed a general educational system, and made promotions on the basis of the recorded conduct of his employees.

As early as 1817 Owen turned Utopian, declaring that "large masses of workers were being brought face to face with starvation because they had produced too much wealth." Like Fourier, Owen proposed a remedy—communism—by the formation of villages of "unity and cooperation" for those unemployed. The villages or circles were to have from five hundred to two thousand persons who would hold some thousand or fifteen hundred acres and would support themselves by farming and manufacturing. Large quadrangular buildings, constructed in the form of a square in the center of the community, were to contain libraries, reading rooms, schools, dining rooms and common dormitories. Within and without the quadrangle attractive playgrounds and gardens were to be located. Factories, farm buildings, laundries, and the like were to be constructed beyond the outer gardens. Each family would have a separate apartment. When children reached the age of three, they were to be turned over to the community

for education. In time, Owen hoped, the whole kingdom, and the world as well, would be organized into circles.¹⁴

Owen's early writing took the title *Essays on the Formation of Character*, 1813-1815. In 1821 Owen wrote the *Social System* which was sufficiently communistic to denounce private property. In 1833 Owen urged the trade unions to merge into cooperative societies and to exchange their products through labor exchanges which would act as a storehouse for goods and grant vouchers or labor notes giving the amount of labor time involved in the production of the deposited articles. For the vouchers the workers were to receive goods involving an equal labor time in their production. Owen declared that a general congress sitting in London would replace Parliament and run the country's business. This change would be effected without any violence or disorder. Yet many workers even then were demanding a general strike.

Growth of Socialism in England.—Christian socialism is due to the efforts of Maurice, Kingsley, Hughes, and Ludlow, who believed that the application of the teachings of Christ would solve the industrial problems of the day and would show that there was no necessary connection between secularism and socialist theory and practice.

During the third quarter of the nineteenth century radicalism in England was low, for labor was becoming well organized, cooperation was growing, and new ideals were few. In the last quarter of the century, nevertheless, socialism revived due to a variety of causes: influence from Europe, bad economic conditions, low share of labor in national wealth, various socialistic publications, dissatisfaction with the government's legislation, strikes, and the formation in 1889 of the Gas Workers' and General Laborers' Union which obtained without strike an eight-hour day in the London gas-works. In 1880 the Democratic Federation, later called the Social Democratic Party, was formed, and the anarchistic wing which broke off from it soon disappeared. The Social Democratic Federation followed a thoroughly Marxist policy, but at the outbreak of the war it had a membership of not more than twenty thousand. The Fabian Society, founded in 1883,

¹⁴ His best known colony at New Harmony, Indiana, was a failure.

worked among the middle and upper classes and was peaceful, evolutionary, opportunistic; its membership was approximately three thousand in 1914. The Independent Labor Party, founded in 1893, although essentially socialistic, was not so thoroughgoing as was the Social Democratic Federation. Many workers, nevertheless, considered it too radical; hence the Labor Party, at first non-socialistic, was organized. In 1907, however, the socialists gained control of the Labor Party, and that party has been the government of England on at least two occasions. But British socialism, unlike that of some continental states, is evolutionary, peaceful, and believes in using political methods to secure its desires.

Industrial unionism, akin to the "one big union" idea, whereby in time all unions would be merged into one which would control production and dispense with the ordinary organs of political government, was pushed during the war period, but made little headway. Somewhat more important perhaps was gild socialism in which the state was "to own the means of production" and the gild was to control production. The main service of gild socialism was perhaps the emphasis on the personality of the worker. It encouraged the demand for workshop organizations whereby the workers received some voice in the control of industry. Some measure of satisfaction, consequently, came through the establishment of the joint industrial councils wherein employees and employers enjoy equal representation, the so-called Whitley councils.

Socialism in Russia.—More cowed and abused than in most European countries the Russian people experienced a new birth as a result of the Japanese War, strikes, peasant risings, and Red Sunday, January 22, 1905, one of the most disgraceful things in recent history. Long continued oppression begets fierce retaliation. Few people suspected that Lenin and Trotsky could capture Russian industrial labor and dominate millions of peasants hungry for land. The Bolsheviki were only an aggressive minority, but as the result of two revolutions in 1917 they seized control of workers' and soldiers' councils and in a little while by intimidation they mastered the state.

The Bolsheviks, believing that the wage-earners would be more favorable to their plan of crushing capitalism than would the peasants, gave five times as much representation to the former as they gave to the latter. At the base of their peculiar government is the local soviet which selects members of the All-Russian Congress. The All-Union Congress of Soviets, which must meet at least once in two years, is the supreme organ of authority. When its more than two thousand members are not in session, supreme authority is exercised by the Central Executive Committee, which consists of the Council of the Union, originally consisting of 371 members but now of 450, elected by the All-Union Congress from the six participating republics in proportion to their population, and the Council of Nationalities, consisting of 139 members, and elected at the Republican and regional congresses of soviets. Each constituent and autonomous republic is entitled to five delegates and each autonomous area is allowed one delegate. The Central Executive Committee, to exercise its powers when it is not in session, chooses a legislative body, a Presidium of twenty-seven members, nine representing the Presidium of the Council of the Union, nine representing the Presidium of the Council of Nationalists, and nine representing the two councils and elected by them in joint session. The Central Executive Committee also chooses the Council of People's Commissars¹⁵ which acts as an executive body responsible to the Central Executive Committee and its Presidium. The Council of People's Commissars has a chairman and seventeen members, three of whom may act as vice-chairmen. The Supreme Court of the Union, connected with the Central Executive Committee, supplies the supreme courts of the Constituent Republics with principles of interpretation on legislation, decides conflicts between members, and examines accusations brought against the high officials of the Union.

The constitution as established in 1923 provided for universal suffrage for all citizens above eighteen unless they employed others for profit (farmers excepted), failed to perform

¹⁵ The Constituent Republics also have Councils of People's Commissars modeled after that of the Federal government

useful work, or were clergy. The city workers were allowed one representative in the provincial soviet congress for every two thousand voters, whereas the rural workers were allowed only one representative for every ten thousand voters. District soviet congresses now choose one delegate to the All-Russian Congress for every 25,000 city voters and one delegate for every 125,000 inhabitants of the provincial soviets.

Spread of Socialism.—Zealous missionaries have carried socialistic doctrines throughout the earth. Every European country has its open or secret socialists. In general, the doctrines of socialism found fertile soil in the industrial states and gained strength as the Industrial Revolution visited those countries. In virtually all cases the labor unions were permeated by socialistic doctrines and in virtually all cases also the socialists won recognition in legislative assemblies.

Belgium, being a land of capitalism, offered prolific soil for dissent. Brussels early became the haven of numerous revolutionists fleeing from Germany, Italy, and other countries. From that city Marx and Engels issued their famous *Manifesto* in 1848. The International also had one of its strongest sections in Belgium. The socialists won the spring election in 1936 and thereby retained control of the Belgian government. Development of socialism was slow in Holland, partly because of anarchistic leanings. The Social Democratic Union, formed in 1878, remained with little influence until 1893 when the anarchistic wing was expelled.

Organized socialism in Scandinavia is oldest in Denmark, being encouraged by the establishment of the *Social Democrat* in 1871 and the formation of the Social Democratic Union seven years later. The Swedish Social Democratic Labor Party dates from 1889, but because of the agricultural nature of the country until recent decades growth has been slow. Because Norway was one of the last countries of Europe to be invaded by capitalism and because it is intensely democratic, socialism has revealed little strength in comparison with other countries. Yet in Norway, as in most other countries of western Europe, the socialists reveal strength by controlling one-fifth or more of the legislative votes. In Finland in 1933 they had more than one-third of the representatives.

In central Europe socialism also has revealed strength. Switzerland is perhaps an exception to this statement, for her democratic government and the combination of farming and small-scale manufactures lessened the growth of socialism. Yet the hospitality extended to socialists of all types for decades was not without influence in making converts. Because of conflicting races and industrial backwardness socialism developed more slowly in Austria-Hungary than in Germany and France. The government removed its ban against socialism in 1869, but not until the anarchists were defeated in 1888 did systematic socialist propaganda become effective. Six self-supporting parties representative of the racial groups of Bohemians, Germans, Italians, Poles, Southern Slavs, and Ukrainians then developed. Prior to the World War political organizations of socialists in Hungary, largely agricultural, were banned, but as elsewhere, most of the trade unionists were socialists. In Austria the socialists dominated many city governments until the regime of Chancellor Dollfuss. Czechoslovakia, occupying the industrial part of the old empire, naturally has numerous socialists, the pre-war Bohemian organization being the strongest group of the old empire.

Socialism has revealed less strength in a belt extending from Estonia down through the Balkans than in most parts of Europe. This region is primarily agricultural rather than industrial. In the northern part of the belt, moreover, surplus energy has found vent in cooperative schemes. The proximity of the Russian socialists and their zealous propaganda also aroused opposition in certain quarters in Finland, Estonia, Latvia, and Lithuania. In agricultural Poland the textiles and other manufactures afford opportunities for socialistic propaganda and under socialistic influence places have been made for unskilled laborers in government service, notably the railroads. Albania, Montenegro, and Servia, primarily agricultural and pastoral, cared little for socialism. Yugoslavia, Rumania, Bulgaria, Greece, and Turkey are likewise little interested in socialism. Yet the various peoples have a national aptitude for combination as evidenced particularly by the Bulgarian association of market gardeners. Then, too, the development of city life and of manufactures stimulates

socialism. In Rumania, for example, socialists aided in the passing of labor legislation including an eight-hour day. Greek labor is becoming better organized and, as elsewhere, is socialistic. Due to the fact, however, that more than four-fifths of the people in the countries considered in this paragraph are agricultural, socialism has revealed little enduring strength.

At the opposite extreme of southern Europe, Iberia, socialism has manifested little sustained strength. In Portugal since the overthrow of the monarchy in 1910 ministries have been short-lived, averaging about one to the year, and revolutionary outbreaks have been frequent. Syndicalism and socialism increased, but the country is agricultural and the vast mass of the people are little concerned with socialist theories. The same statement will likewise apply to Spain. Political unrest, the establishment of a republic in 1931, and frequent revolts have helped to spread socialistic teachings, but the expropriation of land and its assignment to peasants in Spain, as elsewhere, militated against socialist theories. In October, 1934 the Leftist Republican revolutionary movement and the general strike failed. The Anarcho-Syndicalists seemed to be disgusted with the socialists "whom they accused of hiding under beds while they did all the fighting during the uprising."

Since that failure Spain has been a seething caldron of discontent. On February 16, 1936, the various Leftist Republican groups gained a sweeping electoral victory. Soon thereafter, Niceto Alcala Zamora, suspected of kingly ambitions, was dismissed from the presidency by the Cortes, which was influenced to that action by the socialists. The grudge of the Leftists began in 1933 when Zamora dissolved the first Cortes of the Republic. A Right Wing government, then coming to power, ruthlessly suppressed the Leftists in Asturias and Catalonia. In December 1935, the Leftists, fearful of a Right dictatorship, virtually forced Zamora to dissolve the Parliament. After the victory of the Leftists in the February elections impetuous Republicans started an "arson jubilee" by the burning of churches and convents. On March 14, Premier Manuel Azana, possibly prompted by an ultimatum that if the new Left Government did not end widespread violence the

Spanish Army would see that order was maintained, called a halt to the "arson jubilee."

Part of the discontent in Spain is due to the slowness with which the promised land reforms are being made. In Badajoz, in southwestern Spain, late in March, 1936, sixty thousand squatters tried to seize the large estates. They withdrew only when the government promised to rush the legal division of the land under the 1932-laws. In all probability the burning of the churches was not so much an attack upon religion as upon landlordism, for the Church still controls a large amount of landed property. If the peasants secure land they are not likely to join in either a Fascist or Communist state, for they are individualistic. Yet predictions are hazardous. Within little more than four years Spain had eighty ministers in twenty-eight cabinets, about nine thousand strikes, 2,550 deaths in armed risings, nine conspiracies by anarchists, a socialist insurrection, corruption, an unsatisfactory constitution, and a discontented agricultural population. In truth, the last four years of Spanish history form a miniature French Revolution.¹⁶ Plots and revolts seem well-nigh continuous. By the close of July, 1936, the bloody revolt which gathered headway on July 17 had taken tens of thousands of lives. The Popular Front is battling desperately, but with little success, against a coalition of Fascist, Monarchist, Clerical, and various Rightist elements.

Socialism in Italy dates back to the first half of the nineteenth century. Connections with the anarchists, however, as in Holland and Austria-Hungary, retarded growth until 1892 when separation occurred. Although at first socialists worked with the Right, repressive measures gradually forced them to the extreme Left with other radicals. At times the reformists controlled the party and at times the revolutionists controlled it. More than in any other European country up to 1914 the socialists succeeded in their appeal to the agricultural laborers. After the World War Italian labor became even more socialistic, due to the small benefits derived and the Russian connection. In 1919 the Communists gained control of the Socialist Party, becoming with more than 150 seats the

¹⁶ See the *Literary Digest*, March 28, 1936, Vol. 121, No. 13, p. 15.

largest single party in the Chamber of Deputies. But in 1922 Mussolini gained power and restricted the socialists.

Opposition to Socialism.—In early history ruling classes, middle classes, property owners, capitalists, and church people expressed violent opposition to the doctrines of socialism. Conservatives everywhere questioned those who questioned institutions and demanded changes. Today, however, descendants of original enemies of socialism are often its warmest friends. Beliefs and practices regarded as radical and socialistic a half century or more ago are now considered as good Right or Conservative doctrines. Today perhaps the worst enemies of socialism are the extreme nationalist leaders and their followers.

The first man to effectively curb the socialists was Mussolini. In 1922, when the extremists called a general strike the Fascisti converged on Rome. The government surrendered and Mussolini became the real ruler of Italy, a position which he still holds. Unlike the theoretical situation in Russia, where the hierarchy proceeds upward from the will of the people, in Italy it proceeds downward from the will of Mussolini who normally holds half of the cabinet positions in his own person. Every individual who enters the ranks of the Fascists must swear "to obey without question the commands of the Duce . . . and when necessary to shed his blood for the Fascist revolution." Children are educated in the principles of the revolution. The Fascist Party proper has about 1,500,000 members, two hundred thousand out of six hundred thousand applicants being admitted in 1933. Early in 1934 Mussolini won a ninety-nine per cent approval at the polls. On March 23, 1936, in preparation for an expected European war, he even abolished the Chamber of Deputies.

On January 30, 1933, Adolf Hitler, leader of the National Socialists, assumed power in Germany. His first official act, February 1, was the dissolution of the Reichstag. Elections about a month later gave him half of all popular votes and half the seats in the new Reichstag. On May 2, he secured the arrest of the union leaders, thus obtaining the property of the socialist unions. On June 22, he dissolved the Social Democratic Party, decreed the removal of all socialists from office,

and confiscated party property and funds. On November 12, 1933, he received overwhelming endorsement, about 92.2 per cent, for no opposition votes were allowed.

On June 30, 1934 Hitler weathered an incipient revolt of Storm Troopers who were dissatisfied because he was turning to the Right and insisting that the party must obtain power by legal means. Discontent had been brewing for some time, but suddenly affairs came to a crisis and Hitler acted with dramatic swiftness, executing several prominent leaders, including former Chancellor Kurt von Schleicher and Earnest Roehm, Storm Troop leader, and plotter of the revolt. On July 13, 1934, in a radio address, he declared that his course of action which had cost seventy-seven lives, stopped a revolt which would have taken thousands of lives.¹⁷

When President Paul von Hindenburg died on August 2, 1934, Hitler by a series of lightning-like moves established himself as the absolute dictator of Germany. The aged president had acted as a slight brake upon the impetuosity of Hitler's government and Europe in general regarded him as a restraining or conservative influence. Hitler's position thus became critical, but the army at once took the oath of personal allegiance to him. On August 19 the German people approved the cabinet's action in discarding the law which provided for an interim president, thus permitting the combination of the presidency and the chancellorship. Hitler's will is the law in Germany, and the people gladly or sadly, freely or reluctantly, approve his policies, except perhaps those of a religious nature. On March 29, 1936, they even gave him, following the remilitarization of the Rhineland, a ninety-nine per cent vote of approval at the polls.

Although Chancellor Engelbert Dollfuss of Austria will live in history as a blood-thirsty tyrant, he was largely the victim of poor judgment, underrating the courage and determination of the socialists. He feared Hitler and he feared the socialists, fears leading to a nervous strain and hysterical cruelty. When the socialists called a general strike, Dollfuss declared a state of martial law and issued an edict that anyone with

¹⁷ The *Louisville Courier-Journal*, July 14, 1934, and the *League of Nations Chronicle*, July, 1934, pp. 1, 5, and 6.

arms in his possession would be court-martialed and shot. Police and the members of the Heimwehr, the Fascist military organization, went into action, being equipped with machine guns and rifles. The government stretched a barbed wire around Vienna, trying to keep out the workers. The latter barricaded themselves in their homes. At Vienna, Linz, Graz, and Eggenberg fighting occurred. The Socialist Party, which had controlled the government of Vienna for four years was driven out of the City Hall. In the fighting which began February 12 and lasted until February 16, 1934, probably a thousand lives were lost. The attitude of the government toward the socialists has changed little since Dollfuss was murdered by Nazis, July 25, 1934. Recently the dictatorship has been disputed by Chancellor Kurt Schuschnigg and Vice-chancellor Prince Ernst Rüdiger von Starhemberg, the former winning in May, 1936, in part because of an insurance scandal which seemed to involve the latter.

On May 19, 1934, a small group of military men and politicians, weary of the spoils system of a false democracy, overturned the Bulgarian government and established a government of the fascist or authoritative type. Troops seized the railway stations and public buildings, machine guns commanded public squares and other strategic points, police watched the telephone exchanges, martial law prevailed, deposed ministers remained in their homes under compulsion, and authorities made hundreds of arrests. Because the revolt had been in preparation for six months or more a program of domestic and international action was ready. Administrative reforms provided for the fusion of certain ministries, the reduction of cabinet members to seven with a fifty per cent decrease in pay, the replacement of locally elected mayors and other officers by governmentally appointed officers, the balancing of the budget by reduced expenditures and new taxes, the extension of credit facilities particularly to farmers and artisans, the reduction of unemployment through measures to provide work by approved social legislation, the reorganization of the educational system, and judicial reform. The old Parliament of 274 members has given way to a new Parliament of one hundred members, three-fourths of whom

are appointed by the government. In its early stage, however, unlike the regime in Russia, Italy, and Germany, political parties were not banned.¹⁸

Although the Nazis or the Fascists of Italy, Germany, Austria, and Bulgaria alone control states, Fascism, or the authoritative type of government, has reared its head in France, England, Ireland, Spain, Rumania, Latvia, and Estonia, armies apparently waiting the call of dictators.¹⁹ The Stavisky riots in Paris saw World War veterans and others under its banners. Sir Oswald Mosley's Black Shirts in England and General Owen O'Duffy's Irish Blue Shirts have caused alarm. The Mosleyites are undisguised Fascists, but the O'Duffyites are only tinged with Fascism, being opposed primarily to the de Valera regime. Primo de Rivera's Green Shirts of Spain, strengthened by the sympathy of Gil Robles, leader of the clerical-agrarian groups, may seize control of the government. Late in 1933 a Rumanian Fascist assassinated Premier Ion G. Duca. In Latvia early in March, 1934, Fascists, largely World War veterans, attempted to march on Riga. The government declared martial law and crushed the revolt. Estonia established a dictatorship in September, 1935, but suspended it by a vote of more than three to one early in 1936, the vote perhaps being a censure of the Estonian Nazis who attempted to gain control of the government. In recent elections Spain, Japan, Greece, and Canada also have moved away from Right-Wing conservatism. Almost any where at any time European countries may witness conflicts between the two rival principles, democracy and dictatorship, socialism not being sufficiently militaristic to suit rabid Fascists.

SELECTED REFERENCES

Benns, F. L. *Europe Since 1914* (New York, F. S. Crofts and Company, 1934) Chapters XII, XIII, and XVIII

Elorinsky, M. T. *World Revolution and the U. S. S. R.* (New York, The Macmillan Company, 1933) Chapters I and IV-VI

Hoover, Calvin B. *Germany Enters the Third Reich* (New York, The Macmillan Company, 1933) Chapters III IX

¹⁸ See *Current History*, July, 1934, Vol. 40, No. 4, pp. 494, 495

¹⁹ At times, however, as in Yugoslavia and countries with mixed races the dictatorship idea may be directed against races. Alexander I and his host, Jean Louis Barthou, French Foreign Minister, were murdered at Marseilles on October 9, 1934, by a Croat nationalist. In August, 1936, Greece yielded to a dictatorship.

Hullinger, E. W. *The New Fascist State* (New York, Rae D. Henkle Company, 1928) Chapters I-VII.

Laidler, H. W. *A History of Socialist Thought* (New York, Thomas Y. Crowell Company, 1927) Chapters VIII, XVI, XVII, XXII, and XXIV-XXIX.

Makeev, Nicholas and O'Hara, Valentine. *Russia* (New York, Charles Scribner's Sons, 1925) Chapters VI-XI.

Masso, Gildo. *Education in Utopias* (New York, Teachers' College, Columbia University, 1927) Chapters I-X.

Ogg, F. A. and Sharp, W. R. *Economic Development of Modern Europe* (New York, The Macmillan Company, 1926) Chapters XXI-XXIII.

are appointed by the government. In its early stage, however, unlike the regime in Russia, Italy, and Germany, political parties were not banned.¹⁸

Although the Nazis or the Fascists of Italy, Germany, Austria, and Bulgaria alone control states, Fascism, or the authoritative type of government, has reared its head in France, England, Ireland, Spain, Rumania, Latvia, and Estonia, armies apparently waiting the call of dictators.¹⁹ The Stavisky riots in Paris saw World War veterans and others under its banners. Sir Oswald Mosley's Black Shirts in England and General Owen O'Duffy's Irish Blue Shirts have caused alarm. The Mosleyites are undisguised Fascists, but the O'Duffyites are only tinged with Fascism, being opposed primarily to the de Valera regime. Primo de Rivera's Green Shirts of Spain, strengthened by the sympathy of Gil Robles, leader of the clerical-agrarian groups, may seize control of the government. Late in 1933 a Rumanian Fascist assassinated Premier Ion G. Duca. In Latvia early in March, 1934, Fascists, largely World War veterans, attempted to march on Riga. The government declared martial law and crushed the revolt. Estonia established a dictatorship in September, 1935, but suspended it by a vote of more than three to one early in 1936, the vote perhaps being a censure of the Estonian Nazis who attempted to gain control of the government. In recent elections Spain, Japan, Greece, and Canada also have moved away from Right-Wing conservatism. Almost any where at any time European countries may witness conflicts between the two rival principles, democracy and dictatorship, socialism not being sufficient, militaristic to suit rabid Fascism.

REFERENCES

Bemis, F. L. *Europe Since 1875*, Chapters XII, XIII, and XIV. New York: Macmillan Company, 1933) C-1
Hoover, Calvin B. G. *The American People*, 1933) C-1

¹⁸ See *Current History*, July 1934. At times, however, as in the case of the French Foreign Minister, the idea may be directed against a nationalist. In August, 1936,

4, pp. 1-2, country of the world.

Hullinger, E. W. *The New Fascist State* (New York, Rae D. Henkle Company, 1928) Chapters I-VII.

Laidler, H. W. *A History of Socialist Thought* (New York, Thomas Y. Crowell Company, 1927) Chapters VIII, XVI, XVII, XXII, and XXIV-XXIX.

Makeev, Nicholas and O'Hara, Valentine. *Russia* (New York, Charles Scribner's Sons, 1925) Chapters VI-XI.

Masso, Gildo. *Education in Utopias* (New York, Teachers' College, Columbia University, 1927) Chapters I-X.

Ogg, F. A. and Sharp, W. R. *Economic Development of Modern Europe* (New York, The Macmillan Company, 1926) Chapters XXI-XXIII.

are appointed by the government. In its early stage, however, unlike the regime in Russia, Italy, and Germany, political parties were not banned.¹⁸

Although the Nazis or the Fascists of Italy, Germany, Austria, and Bulgaria alone control states, Fascism, or the authoritative type of government, has reared its head in France, England, Ireland, Spain, Rumania, Latvia, and Estonia, armies apparently waiting the call of dictators.¹⁹ The Stavisky riots in Paris saw World War veterans and others under its banners. Sir Oswald Mosley's Black Shirts in England and General Owen O'Duffy's Irish Blue Shirts have caused alarm. The Mosleyites are undisguised Fascists, but the O'Duffyites are only tinged with Fascism, being opposed primarily to the de Valera regime. Primo de Rivera's Green Shirts of Spain, strengthened by the sympathy of Gil Robles, leader of the clerical-agrarian groups, may seize control of the government. Late in 1933 a Rumanian Fascist assassinated Premier Ion G. Duca. In Latvia early in March, 1934, Fascists, largely World War veterans, attempted to march on Riga. The government declared martial law and crushed the revolt. Estonia established a dictatorship in September, 1935, but suspended it by a vote of more than three to one early in 1936, the vote perhaps being a censure of the Estonian Nazis who attempted to gain control of the government. In recent elections Spain, Japan, Greece, and Canada also have moved away from Right-Wing conservatism. Almost any where at any time European countries may witness conflicts between the two rival principles, democracy and dictatorship, socialism not being sufficiently militaristic to suit rabid Fascists.

SELECTED REFERENCES

Bennis, F. L. *Europe Since 1914* (New York F & Crofts and Company, 1934) Chapters XII, XIII, and XVIII

Elorinsky, M. T. *World Revolution and the U. S. S. R.* (New York, The Macmillan Company, 1933) Chapters I and IV-VI

Hoover, Calvin B. *Germany Enters the Third Reich* (New York, The Macmillan Company, 1933) Chapters III-IX

¹⁸ See *Current History*, July, 1934, Vol. 40, No. 4, pp. 494, 495

¹⁹ At times, however, as in Yugoslavia and countries with mixed races the dictatorship idea may be directed against races. Alexander I and his host, Jean Louis Barthou, French Foreign Minister, were murdered at Marseilles on October 9, 1934, by a Croat nationalist. In August, 1936, Greece yielded to a dictatorship

Hullinger, E. W. *The New Fascist State* (New York, Rae D. Henkle Company, 1928) Chapters I-VII.

Laidler, H. W. *A History of Socialist Thought* (New York, Thomas Y. Crowell Company, 1927) Chapters VIII, XVI, XVII, XXII, and XXIV-XXIX.

Makeev, Nicholas and O'Hara, Valentine. *Russia* (New York, Charles Scribner's Sons, 1925) Chapters VI-XI.

Masso, Gildo. *Education in Utopias* (New York, Teachers' College, Columbia University, 1927) Chapters I-X.

Ogg, F. A. and Sharp, W. R. *Economic Development of Modern Europe* (New York, The Macmillan Company, 1926) Chapters XXI-XXIII.

CHAPTER XXVI.

THE REVOLUTION IN TRANSPORTATION AND COMMUNICATION

Canals.—The modern canal system was first made possible by the invention of locks. The honor for this invention has been claimed for two engineering brothers at Viterbo, Italy, in 1481, also for Leonardo da Vinci, and even for Holland a century earlier. By the closing part of the fifteenth century locks were in use in both Italy and Holland. The first country to develop a large-scale canal system was France. Henry IV started the Briere Canal which joins the Seine and the Loire in 1605 and Louis XIII completed it in 1642. The Orleans Canal uniting the same basins by the Loing was finished by Louis XIV in 1675. The most important of all the French canals, the Languedoc, which connects the Bay of Biscay and the Mediterranean, was completed in 1681. These French canals mark the beginning of a system which has given France more than 3000 miles of canals in addition to more than 4600 miles of serviceable rivers. In 1879 France passed a law which required that canals have a uniform depth of 6.5 feet with locks 126.5 feet long and 17 feet wide. One of the most noteworthy French canals is the Nord, started in 1907 and connecting the Oyse Canal at Noyon and the Sensee Canal at Arleux, a distance of fifty-eight miles. The Marseilles-Rhone Canal, fifty-one miles in length, was opened in 1927; 4.5 miles are tunnelled under a mountain.

In Sweden a canal connecting Eskilstuna with Lake Malaren was completed as early as 1606, but the Gotha Canal, uniting Stockholm with Gothenburg and covering a distance of 280 miles, though planned in 1716, was opened in its entirety only in 1832. Denmark completed a canal connecting the North

Sea with the Baltic in 1785. In the early part of the eighteenth century Peter the Great planned and constructed an ambitious scheme of canals and canalized rivers to give St. Petersburg connection with the Caspian Sea, a distance of 1434 miles. Canal construction has also been emphasized in recent years. In 1933, for example, Russia by completing a lock system around rapids opened the Dnieper River to ocean-going vessels for a thousand miles. In the same year the country opened an inland waterway from the Baltic Sea to the White Sea. Louis of Bavaria, 1836-1846, revived Charlemagne's scheme of connecting the Main and thereby the Rhine with the Danube. The canal is approximately 108 miles long. Enlargement of this system began in 1921, the object being to take care of barges loaded with 1200 to 1500 tons of merchandise. Germany's six main rivers,—the Danube, Vistula, Oder, Weser, Elbe, and Rhine,—and numerous small streams supply about 6000 miles of navigable rivers and lakes and her canals and canalized streams increase that total by more than one-third. So carefully has the German system been planned that practically all heavy commodities such as coal, grain, ore, and lumber are carried by water.

Holland and Belgium likewise have well developed canal systems, dating back in the former, but primarily for irrigation, to 1250. Holland's network of canals of about 2500 miles is used almost entirely for freight and passengers. Connections are with rivers, the North Sea, and the German frontier with the idea of helping such ports as Amsterdam and Rotterdam. Belgium began to acquire canals as early as 1830 and now owns most of the canals. The system amounts to 1345 miles, the most important single waterway being between Ghent and Terneuzen.

The oldest English canal is the eleven-mile Foss Dyke, a survival of Roman occupation, connecting Lincoln with the Trent close to Torksey. This canal seems to have been deepened in 1121, but not until the Bridgewater Canal was opened in 1761 did England make much progress in canal construction. The Grand Junction, Leeds and Liverpool, Trent and Mersey, and Kenet and Avon are the leading English canals. The Irish have the Grand Canal connecting Dublin with the

Irish Sea and the Royal Canal makes the same connection by a parallel course. The Caledonian and the Forth and Clyde are the chief Scotch canals. By 1834, according to some authorities, no point in England south of the county of Durham was over fifteen miles from some method of water conveyance. Great Britain now has about 4700 miles of canals, about five-sixths being in England and Wales alone.

Except for the 35.5-mile Manchester Canal opened in 1894 English canals have had little success in recent decades. From 1894 to 1933 traffic on the Manchester-Liverpool Canal increased sevenfold, but that on all English canals fell half.

The manufacturing section of northwestern Europe has the best developed transportation system in the world. Within an area of eight hundred thousand square miles it has spent more than one billion dollars on waterways, or about two dollars per acre. The deliberate effort to increase the ease of navigation is apparent in the Rhine stretch between Mannheim and Strassburg. In 1893 the river could be used only seventy days but owing to the deepening and improvements made by Baden and Alsace-Lorraine the river could be used for 356 days in 1910. Germany prior to the World War, carried about 118,000,000 tons of freight on her waterways, approximately six times the total of the United States exclusive of the Great Lakes.¹

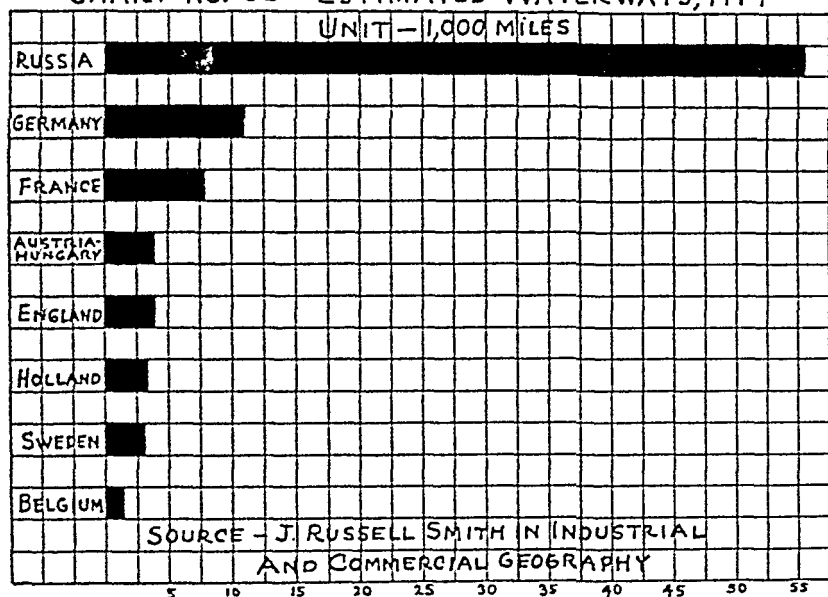
The canals of greatest importance from the international viewpoint are those which will float the largest vessels. In Europe the North Sea connection between Wijk and Amsterdam opened in 1877 and only fifteen miles long and the Cronstadt and Leningrad connection sixteen miles long opened in 1890 are of more than local significance. The Corinth Canal, though only four miles long, was of importance because it connected the Gulf of Corinth and the Saronic Sea and since 1893 has saved weary and dangerous travel around the Peloponnesus. The Kaiser Wilhelm Canal, opened in 1895 and connecting the Baltic and North Seas, a distance of sixty-one miles, and the Elbe and Trave Canal, opened in 1900, and making the same connection, a distance of forty-one miles, are of great significance. Even the Welland, the Soo, and the

¹ See Smith, J. R. *Industrial and Commercial Geography*, pp. 755, 756

Cape Cod canals of North America are of some significance for European trade.

Most important of all canals are the Suez and Panama schemes. Ferdinand de Lesseps raised half of the money for the Suez canal in France, about a fourth in Egypt, and the remainder from widely scattered sources. The canal, opened in 1869, was 104.5 miles long, 26 feet deep, and without locks. English leaders were at first indifferent to the canal, but later welcomed the opportunity to buy from the Khedive of Egypt, who had obtained the controlling interest, 176,602 shares.

CHART NO. 32 - ESTIMATED WATERWAYS, 1914



Benjamin Disraeli overcame the opposition of Lord Derby, converted Queen Victoria to the plan, borrowed \$20,000,000 from Baron Rothschild, and on November 23, 1875, closed the deal which gave England control. De Lesseps failed in the Panama Canal because of disease, rocks, and corruption. George W. Goethals, thanks to the advance of medical science, the energy of President Theodore Roosevelt, and the courtesy of England, brought the canal to a successful conclusion in 1914. The locks will accommodate vessels with a length of one thousand feet and a width about one-ninth as great and are

built in pairs in order that boats moving in opposite directions may not be delayed. The length of the canal is about forty-four miles and the cost was about \$375,000,000.²

Wagon Roads.—Some relics of the ancient Roman roads existed in the countries which had once been subject to Rome. In 1597 Sully began the definite improvement of French roads, broken stone being used for surfacing during his ministry. Colbert became Comptroller of Finance in 1661. By forcing the peasants to give the *corvee* he soon had fifteen thousand miles of road surfaced with broken stone. Although this compulsory labor injured the peasants and aroused bitter opposition, it was continued with little change until 1774 and was not dropped until 1787. The present French system dates from about 1775 when Tresaguet introduced in Limoges a system which provided for proper drainage, lessened the material used, and substituted for the *corvee* permanently employed workers under the supervision of skilled engineers. For a century and a half the state department of roads and bridges has controlled the highways of France.

Roads in England, as in France, had fallen into decay. Because, however, London streets were "foul and full of pits and sloughs, so as to be mighty perilous and noxious,"³ paving was started in 1532. Three years later parish roads were provided for, and in 1663 the first turnpike act was enacted. As a rule, nevertheless, the turnpikes were poorly maintained. Thomas Telford and John Macadam, however, two Scotch engineers, began to improve the roads in a marked way near the beginning of the nineteenth century. Both men insisted on a careful preparation of materials and on good drainage. Telford used a pitched foundation long employed in France. Macadam had the soil removed to a depth of about fourteen inches and filled half of this opening with coarse, cracked stone, and the remainder with fine stone, the top being reduced to dust and rolled smooth. Today England and Wales have about 152,000 miles of highways and Scotland has about 26,000.

² See St. Clair, Labert. *Since Time Began. Transportation, Land, Air, Water* (Dodd, Mead and Company, New York, 1933) pp. 186-195.

³ See Miller, B. L. *Inland Transportation—Principles and Problems* (McGraw-Hill Book Company, Inc., New York, 1933) p. 572.

Other countries of western Europe likewise improved their roads and these improvements extended into northern Europe. Even yet in all European countries, however, some poor roads and some backward methods appear. As late as 1875, for example, Eudora Smith commented on road scenes and backward methods of transportation in Germany. She referred to teams consisting of a dog and a woman, a dog and a boy, and a mule and a man, and then observed, "I infer that horses are scarcer in this country than are men and women."⁴

But the conditions in western Europe were far ahead of conditions in eastern Europe and the Balkans. The poor transportation facilities checked economic development in all of eastern Europe. A man who had resided for several years in Russia explains how the bad roads hindered travelling and commerce, particularly in the spring months, in an interesting article entitled "Life in the Interior of Russia":

To give a faint idea of what a Russian road is like in its worst state, I shall just relate what occurred to a friend of mine who was obliged to travel from Ekaterinoslay to Kharkoff in the month of March, 1853; the distance is about 200 versts, or 140 English miles, and is generally done in twenty-four hours or less in the winter or summer. He was quite alone, without servant or luggage, except a small portmanteau, and travelled in the ordinary post-wagon, which will not weigh altogether more than 3 or 4 cwt.—had five post-horses to it, the usual number being three; and, notwithstanding all this, he was seven days and six nights on the road, travelling day and night, as is the custom in Russia, there being no inns on the road where to stop. Now, if travelling by post is attended with so many difficulties in the spring of the year what must be the expense and trouble of transporting corn at that time? It is utterly impossible, for its value would be doubled in about twenty-five miles! . . .⁵

Russia as late as 1914 carried one-third of her total freight on her waterways. But they are frozen four to seven months in the year. Even in winter many waterways are used for freight sleds, travelling being better than on the bad roads. Now Russia has about four-fifths of a million miles of roads, long well-nigh entirely supported by the local divisions. In March, 1936, the authorities announced an epoch-making road program. Within recent decades road construction has developed in the Balkans and southern Europe. Finland and

⁴ *Wayside Notes and Fireside Thoughts* (John Burns Publishing Company, St. Louis, 1884) pp. 81, 82.

⁵ *Blackwood's Edinburgh Magazine*, August, 1855, Vol. 78, p. 272.

the Scandinavian countries are equipped fairly well with roads in proportion to their population. Sweden and Norway together have approximately sixty thousand miles of roads, the government making some contributions to the chief roads but support being largely local. Italy has about sixty thousand miles of road, which like the 406,000 miles of French roads, fall into three classes: national, provincial, and communal. Spain has state and provincial roads and Portugal is developing roads. Germany, the old Austro-Hungarian territory, Poland, and the new Baltic countries, in short, all of Europe, seem interested in improving roads.

Coaches, buggies, bicycles, and automobiles have at varying times aroused interest in the roads. Possibly the first interest in the new developments was manifested by the two-wheeled German carts. The wheels were constructed from solid wood or from a few strips placed across a rim. Rough boxes formed the bodies. One of the first coaches, owned by Frederick III of Germany, probably developed from the old carts in 1474. In that year the emperor journeyed to Frankfort in a four-wheeled covered wagon drawn by two horses. He sat on a chair and enjoyed protection from a rain storm behind closed curtains. Blaise Pascal of France invented the omnibus and in 1662 received a patent from Louis XIV. The Earl of Rutland in 1555 is credited with the first coach in England, but an old ballad gives the honor as far back as 1291 to Eleanor of Provence, wife of Henry III:

"She was the first that did invent
In coaches brave to ride;
She was the first that brought this land
To deadly sin and pride"

Stagecoaches were slow in overcoming opposition. In 1659 a six-horse wagon ran between London and Dover, the driver walking by the side and cracking jokes as the pay passengers within cracked bones. Numerous attacks were made on the system, one in 1673 declaring that it was harmful to health and business to ride all day with "sick, ancient, and diseased persons" and to be "poisoned by their nasty scents and crippled by the crowd of boxes and bundles."⁶

⁶ See St. Clair, Labert. *Since Time Began. Transportation, Land, Air, Water*, p. 46.

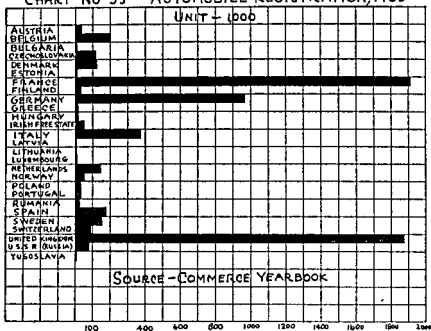
The first stage coach between Glasgow and London in 1749 required two weeks. The "Flying Coach" started in 1754 covered the distance between Manchester and London, 188 miles, in four days. When the government allowed the stages to carry mails in 1794 it helped the coaches, but the greatest impetus came through the good roads movement launched by John Loudon Macadam. New vehicles, of course, appeared and in 1804 came the steel springs which, in the course of a quarter of a century, replaced the straps and wooden springs.

Until the advent of the automobile England, France, and the United States had usually carried off prizes in international coach competition. Possibly the most significant change was the victoria, a small open carriage weighing approximately three hundred pounds with rear wheels 2.5 feet high and front wheels 1.5 feet high. It was presented to Queen Victoria for a grandchild in 1850. Italy and Spain sold vehicles to Latin countries; England sold them to her colonies, Russia, Brazil, and Java. Belgian, Danish, German, Norwegian, Russian, and Swedish manufacturers copied British and French patterns. Virtually all countries have at some time or other produced distinctive vehicles, the Russian one-horse hack or droshky taking the prize for the most uncomfortable vehicle ever invented. Driver and passengers occupy the same seat which extends through the center of the coach body. The passenger, unaided by a rest board, straddles the seat and when the driver gallops his horse the passenger grabs the driver by the neck or shoulders to keep from falling off. Although Russia now has many cars, the droshky is still used.

Isaac Newton may have suggested a motor about 1660 and N. J. Cugnot, a Frenchman, in 1769, constructed a steam tractor which pulled artillery on highways at the rate of three miles an hour. Etienne Lenoir, according to the French, constructed the first gas engine in 1859 and Siegfried Markus exhibited a crude "benzine car" at Vienna in 1873. Karl Benz of Germany probably deserves the most credit, for in 1883 he built and publicly ran a gasoline car. Germans were little interested in the vehicle, but Emile Roger of Paris was and cars began to be marketed and inventors elsewhere began to copy and to improve methods.

Although American cars dominate world markets, British, French, German, and Italian manufacturers produce fine machines, most of which are used locally. France is the European leader. Trucks and busses haul freight and passengers. Beginning with the Boer War, but particularly in the World War, motor ambulances saved many lives. Yet motor vehicles also took many lives by moving ammunition to fighting armies.⁷ Developments in construction and speed have been remarkable, ugly buggy-like contraptions giving way to beautiful and

CHART No 33 — AUTOMOBILE REGISTRATION, 1935



luxurious cars and the slow wheezy time of an old nag to the 301 mile-an-hour speed of Sir Malcolm Campbell on the salt flats of Utah, September 3, 1935.

Rail Transportation.—Possibly as early as 1602 a wooden railway track was laid in a Newcastle coal mine. Sheffield, in 1776, witnessed the laying of the first iron rail. In 1801 Parliament approved the Surrey Iron Railway and Richard Trevithick built and ran publicly a steam locomotive. Three years

⁷ See *Ibid.*, pp. 134, 135

later Trevithick hauled a load of ore on a tramroad and the Surrey road began.

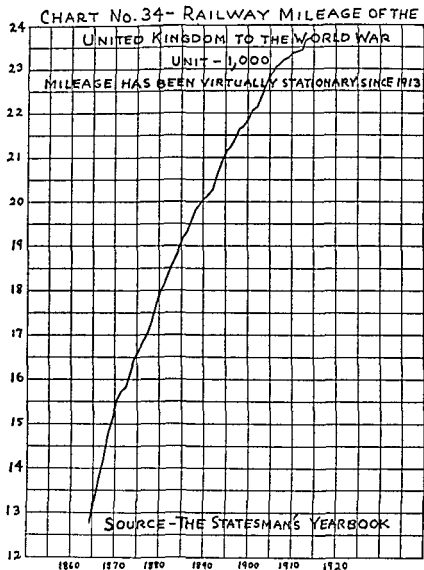
George Stephenson in 1814 built the *Blucher* which pulled thirty tons of ore up a steep hill, a feat for which Parliament made him engineer of the Stockton and Darlington Railway. Stephenson's 1825-locomotive drew ninety tons of ore, but his reputation rests upon his 1830-*Rocket* which used the principles widely copied by subsequent steam locomotives. Its success was due to its rapid generation of steam and its direct application of power to the driving wheels.

People, of course, questioned the new means of conveyance. Some thought that it was "an engine of the devil to lead immortal souls to hell fire." They believed that travel at a faster rate of speed than four miles an hour was dangerous and that a speed of fifteen miles an hour was suicidal. Steam railroads were opposed also by the vested interests, canal companies and stage coaches, but gradually the opposition died down.

With the opening of the Liverpool-Manchester Road in 1830 steam navigation was accomplished successfully, that road being the first intended to carry passengers. Stephenson's *Rocket* attained a speed of twenty-nine miles an hour. In 1838 the London-Birmingham line, 112 miles in length, was opened. The idea at first was for a company to build the tracks and to allow anyone who was willing to pay tolls to run cars and locomotives over them, but such plans were, of course, unsuccessful. In 1844 the Cheap Trains Law required that every line should operate daily at least one train in each direction at a charge to passengers of not more than a penny a mile and at a speed of at least twelve miles an hour.

The numerous small companies, due in part to the evils of unrestrained competition and to the Crisis of 1847, tended to consolidate until by 1913 most of the mileage was in the London and Northwestern, the Great Western, the London and Southwestern, the Great Northern, the Northeastern, the Midland, and the Great Eastern. In 1850 the mileage was less than seven thousand, but twenty years later it was more than twice as much. Thereafter the rate of increase declined, the mileage being little over twenty thousand in 1890 and less than twenty-four thousand at the outbreak of the World War.

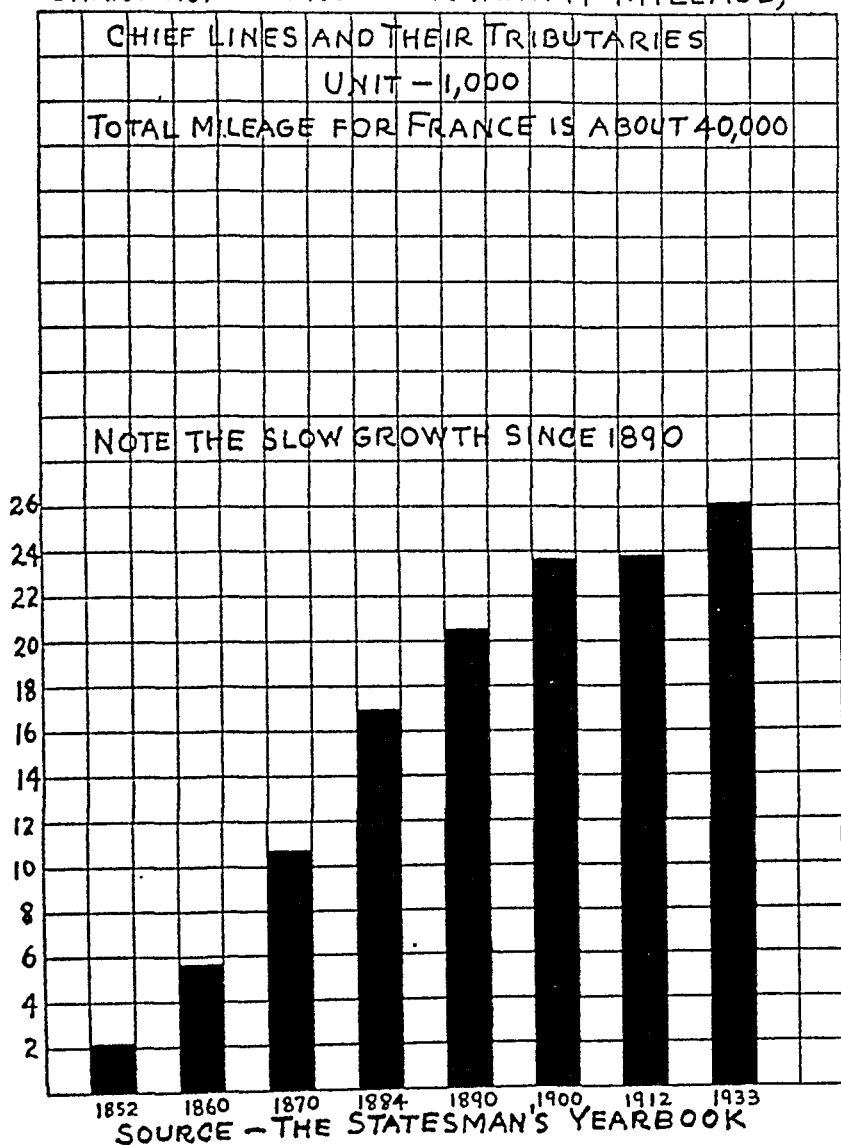
The development of the steam railroads naturally occurred at different rates of speed in different countries, being slowest in eastern and southern Europe. In Belgium construction



began as early as 1833, in Germany a four-mile railroad between Nuremberg and Furth began operations in 1835, in Russia a short line connecting Petrograd with the Czar's

summer residence furnished service in 1836, and in the same year Austria granted her first railroad charter.

CHART NO. 35 - FRENCH RAILWAY MILEAGE,



France's plan, finally adopted in 1842, provided for nine main lines radiating from Paris as a center to all parts of the frontier. The government was to provide a fourth of a million

francs per mile and to own the road bed. Companies chartered by the government were to furnish about a fifth of a million francs per mile for tracks, rolling stock, buildings, etc. and to run the lines. At the end of forty years the whole system was to be taken over by the state. Construction was slowed up, of course, by the Revolution of 1848 and the Crisis of 1857. By the latter date the system had fallen under the control of six great companies. In order to encourage the development of local business the government in 1859 introduced a system of government guarantee of profits and extended the company charters for ninety-nine years from that date, with the possibility of state purchase within fifteen years. In 1908 the Western Company with a mileage of 3690 was purchased by the government. Total mileage at the outbreak of the European War was approximately thirty-two thousand, a little less than a fifth being state-owned. The Alsace-Lorraine system, acquired after the war, is operated by the government.

In southern Germany railroad construction was regarded as a public function, but the first Prussian roads were built by private companies. About 1842 the French method of guaranteeing interest on investments came into use. Bismark favored imperial ownership of the roads, but could not carry that policy. State ownership, however, came rapidly into vogue. In 1875 privately-owned roads were more numerous than were state-owned roads, but in 1910 more than nine-tenths of the nearly thirty-seven thousand miles were owned by the various states. Only Belgium, Netherlands, the United Kingdom, and Switzerland then led Germany in miles of railway in proportion to area.

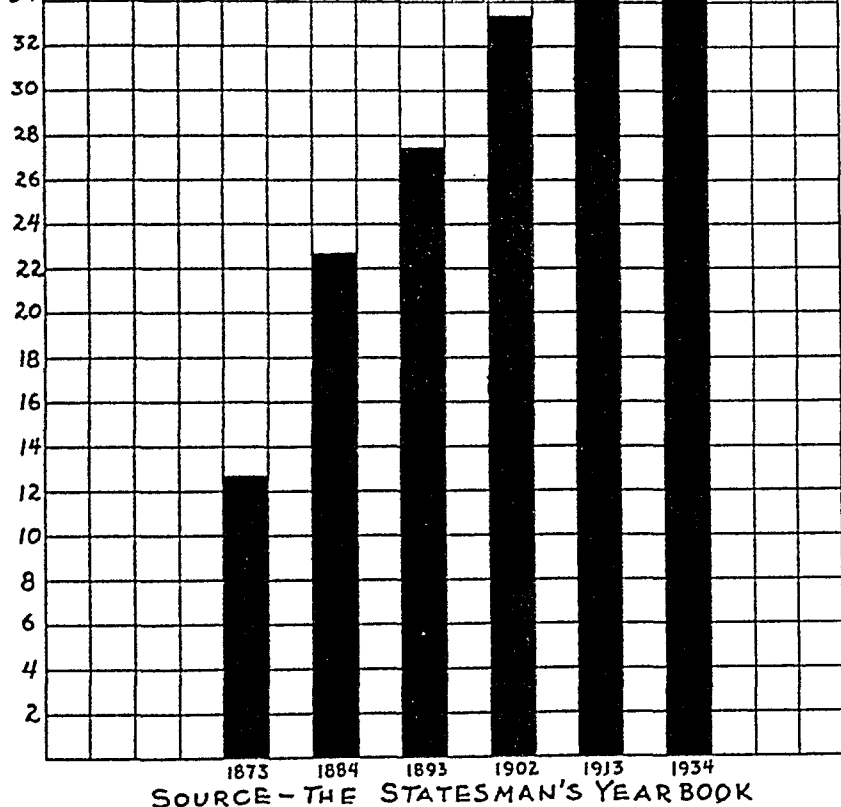
In 1843 Russia began two important roads, one to link Petrograd with Moscow and the other to connect Warsaw with the Austrian boundary. Railroad construction averaged six hundred miles a year from 1856 to 1878. After 1881 the government undertook new lines and with the appointment of Count Witte in 1893 to the ministry of finance construction increased in a marked way, total mileage from 1885 to 1900 rising from little more than sixteen thousand to more than forty thousand. The greatest of the roads was the Trans-

Siberian begun at Vladivostok in 1891 and completed within ten years save for a strip around Lake Baikal. By 1905 it afforded continuous transportation from Leningrad to Vlad-

CHART NO.36-GERMAN RAILWAY MILEAGE

UNIT - 1,000

AS IN OTHER COUNTRIES THE RATE OF GROWTH DECREASED TOWARD THE CLOSE OF THE NINETEENTH CENTURY. THE DECREASE SINCE 1913 HAS BEEN DUE TO THE WAR.



vostok, a distance of about 5500 miles. The time and the cost of travel were reduced half and the settlement of Siberia was greatly stimulated. After 1889 rates on privately-owned

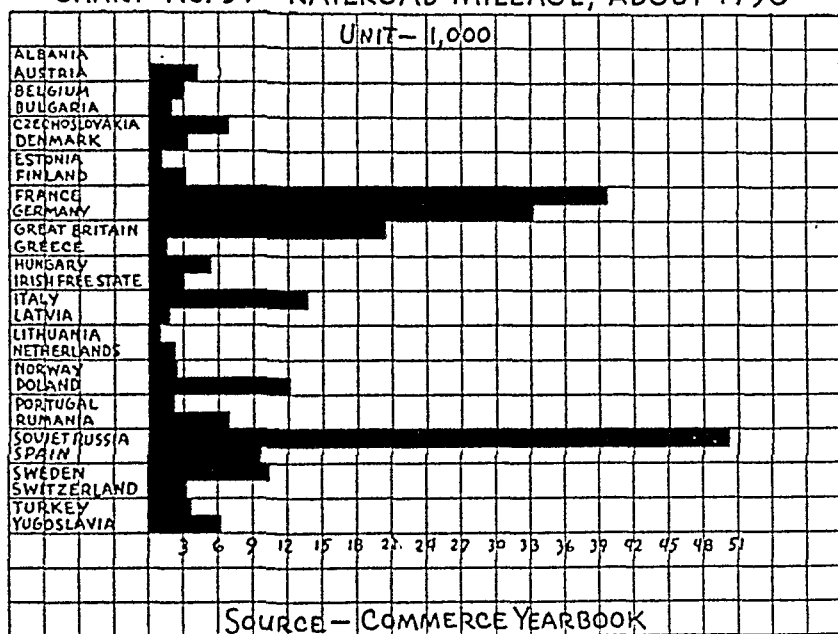
roads were subject to government regulations and five years later a zone tariff system, which reduced long distance passenger and freight charges, was adopted. By 1900 the state owned over three-fifths of the railway mileage and in 1914 nearly three-fourths, or about 34,000 out of more than 47,000 miles. The World War destroyed more than one-fourth of the Russian mileage, but that loss has been overcome and the present government, which has taken over the railroads, is planning ambitious extensions by 1938.

By the closing part of the nineteenth century all of the European countries except the Balkans had made a beginning with railroads. Not until the twentieth century, however, did construction make notable progress in the Balkans, Albania being without railroads until 1925. The rocky topography of much of the Balkan territory points to the development of aircraft rather than railroad or automobile transportation.

One prominent point in European transportation was the danger of competition which virtually everywhere forced consolidation. A second noteworthy point was the extension of state control through ownership and operation. In Belgium private roads increased from two hundred miles in 1850 to seven times as many in 1870. The government then began to buy out the private companies and within a decade had two-thirds of the mileage and by 1902 virtually all of it. In 1929 it owned six-sevenths of the total. Operation, however, was passed over to a private company in 1926 for a period of seventy-five years. Since 1870 Italy's problem has been the union and consolidation of local lines and the improvement of equipment. Four chief systems,—Upper Italy, Rome, the East Coast, and Sicily and the South,—have developed. In 1929 the government owned about five-sixths of the mileage, but the lines were operated privately. Austria, which had the honor of enacting the world's first general railway law in 1838, began to acquire control of the roads in 1873 and now operates about six-sevenths of the mileage. Switzerland bought five important lines in 1898, her state lines in 1929 including a mileage of about 3,400. Holland, Denmark, and some of the Scandinavian countries follow the Italian example. On June 30, 1929, all of Norway's system except 229

miles was owned and operated by the government, but only two-fifths of Sweden's mileage was governmental. Sweden, however, prohibited more effectively than is usual the competition between private lines and between such companies and the state lines. Conditions in Spain and Portugal are backward, the railroads being of different gauges. They are owned by private companies but controlled by the state. Except for Spain, Portugal, France, England, Denmark where nearly half is state line, and Sweden where two-fifths is state

CHART No. 37~RAILROAD MILEAGE, ABOUT 1930



line, railroads are governmentally-owned and operated for the most part. Roads in Holland are owned by two private companies, but the government owns more than half of the stock of each company.

As a whole Europe had in 1930, 2026 people per mile in comparison with 493 in the United States and 5.6 miles of railway per hundred square miles of territory in comparison with 8.4 in the United States. Sweden is the European leader population considered and Belgium is the leader in proportion

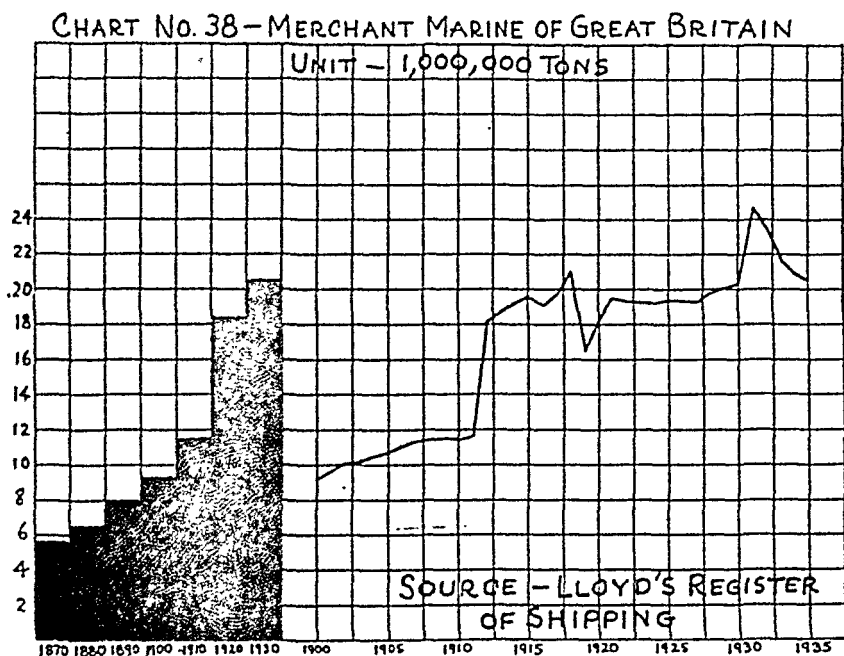
to area. In general, European freight traffic is inferior to American traffic, but passenger traffic in western Europe at least seems to be superior to that of the United States. Improvements proceed rapidly, electrification in particular being favored. In Switzerland, where the mountains encourage such practices, two-thirds of the government lines are electrified and the proportion is high in some of the other countries. For all of Europe London and Paris are, of course, the chief railroad centers. By channel boat and rail four routes reach from London to Paris. From Paris to Lisbon, southern Italy, and eastern Europe various routes spread. The chief European cities have connections, through tunnels, mountains, or plains, with each other. Travellers and valuable goods can thus journey everywhere, even from Lisbon to Vladivostok, by rail.

Within the cities transportation has, of course, developed. Probably the first horse and rail car venture in a city was the outgrowth of the Stockton and Darlington Railway in 1825. Early cars were really wheeled shanties with three windows to a side and a step and door at the rear. Steam-power cars soon followed. Thomas A. Edison, Stanley A. Field, and Ernest Werner von Siemens filed patent papers within three months of each other. The German was the first to put a line in operation. It was used at the Berlin Exposition in 1879. The experiment made use of a dynamo engine which pulled three trailers containing eighteen passengers at the rate of eight miles an hour by the third-rail plan. Frank J. Sprague of New York constructed the first successful overhead trolley system at Richmond, Virginia, in 1888. Within two years 150 American communities had installed such a system. Sprague even installed a system in Florence, Italy. Accidents retarded growth, but in 1895 the London Underground changed from steam and electric engines to the use of the third rail, Budapest used an electrified subway in 1896, Berlin adopted a third-rail surface system in 1897, Paris electrified subway and elevated lines in 1900, and Milan and Berlin subways in 1902. By 1905 electrified city lines were virtually worldwide. Save for London and Paris the surface lines dominated the world. Budapest in 1889 seems to have been

the pioneer in the conduit system, but American cities followed shortly, Chicago using the first regular elevated third-rail line in 1895.

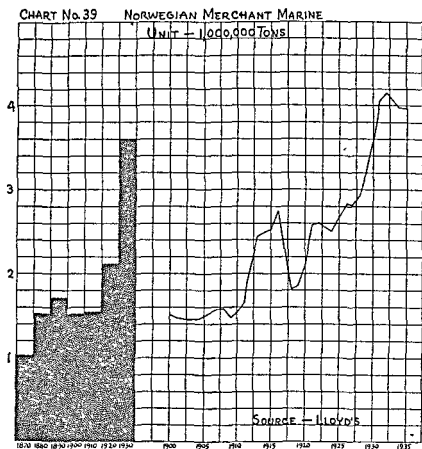
Charles C. Henry of Anderson, Indiana, was the pioneer in joining cities by electric lines. This movement spread rapidly in the United States and Europe, cars making more than a hundred miles an hour now being used. Barcelona, Berlin, Budapest, Glasgow, Hamburg, Liverpool, London, Madrid, and Paris are the European cities with subway systems; other cities with such systems are Buenos Aires, Boston, New York, Philadelphia, Sydney, and Tokio. The London people did not like the deep tubes, but Alfred Stanley, an American, by appealing to curiosity through the use of wild animals, flowers, and the like got the people underground where they lost their fears. Heavy cost, at times ten million dollars a mile, also has retarded growth. Motor busses, private automobiles, velocipedes, bicycles, motorcycles, and the like compete with the interurbans and with street car service.⁸

Ocean Transportation.—Until well into the nineteenth cen-



⁸ See *Ibid.*, pp. 136-152 and Daggett, Stuart. *Principles of Inland Transportation* (Harper and Brothers, New York), 1928) pp. 40-54.

tury boats were made of wood and were run by oars or sail power. The War of 1812 promoted the development of privateers and led at least indirectly to the development of packet lines transporting freight, mail, and passengers. Near 1840 two new inventions threatened the packets, namely, the



famous Yankee Clipper which could make three hundred or more miles a day and the steamboat. England competed with the United States in clippers, but lost to her own advantage, for she developed the steamer. Moreover, as early as 1843 by successfully launching the 3,600-ton *Great Britain* she definitely proved that large iron boats were possible. Such boats were less attractive than clippers but more profitable and

usable. Yet as late as 1900 clippers navigated Cape Horn, some saw service in the World War, and a score or so are still in use in the tramp traffic.

When steam was first applied to water transportation is a disputed point. Perhaps the Marquis de Jouffroy on the Saone about 1780 operated a steamboat 150 feet long and a tenth as wide for about sixteen months. On the Connecticut River in 1787 John Fitch successfully operated a steamboat, but lack of money led to his failure. Numerous other American inventors contributed to the development of the steamboat. William Symington of Falkirk, in Scotland, in 1802, successfully operated a steamboat on the Forth and Clyde Canal, but for some reason withdrew the boat from use. Robert Fulton's *Clermont*, making a 150-mile trip from New York to Albany in 1807 in thirty-two hours, is usually regarded as the first commercially successful steamboat. The next year John Stevens' *Phoenix* made the first ocean steamboat voyage in history, from Philadelphia to New York. But not until the crossing of the Atlantic by the British *Great Western*, Bristol to New York, in 1838, in fifteen days did steamboat navigation really start.

Early in the forties the improvement of engines and the adoption of screw propellers increased confidence in steamers. England schemed to capture the transcontinental trade, and her famous Cunard Line, founded by Samuel Cunard, began in 1840, assisted by a government subsidy. This line successfully fought the Collins Line of the United States. It emphasized safety and until the World War no passenger met death on a Cunard boat.⁹ The destruction of the *Lusitania*, one of its boats, by a German submarine was an important factor in the entrance of the United States into the World War. Numerous other English lines are important, the Cunard-White Star merger of early 1934 being symbolic of the general tendency toward combination, similar mergers already having occurred in France, Italy, and Germany.

John Elder of Glasgow by developing the compound engine revolutionized the shipping business. Steam was even used in third and fourth cylinders. Boilers, too, were improved.

⁹ See St. Clair, Labert. *Since Time Began. Transportation, Land, Air, Water*, p. 212.

CHART No 40 - GERMAN MERCHANT MARINE

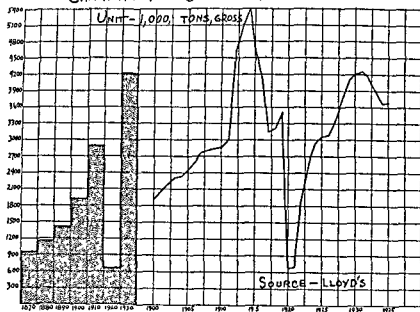


CHART No. 41 - FRENCH MERCHANT MARINE

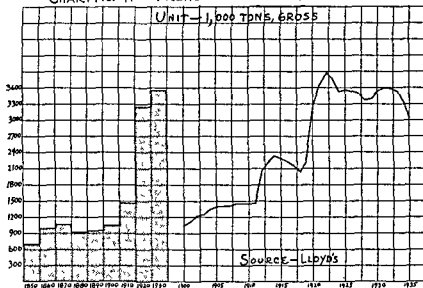


CHART No 42 - ITALIAN MERCHANT MARINE

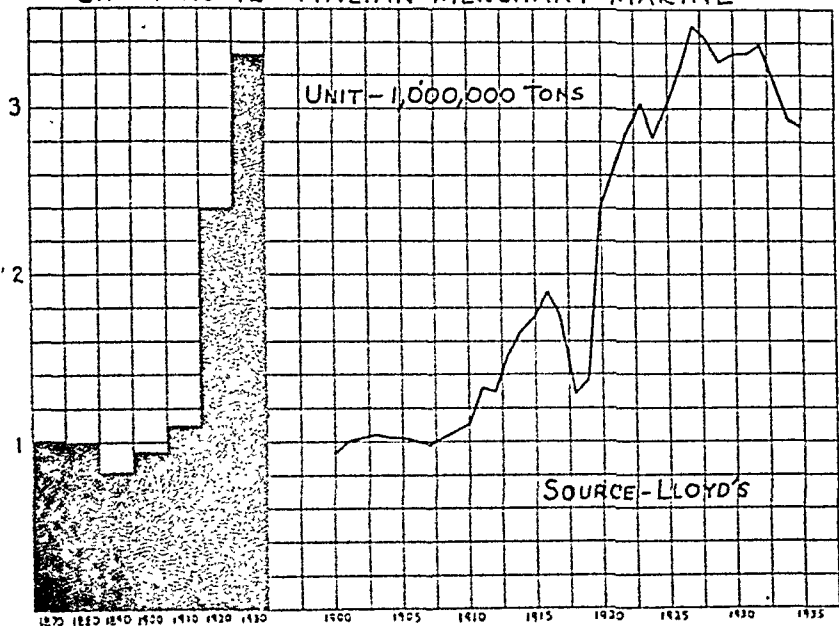
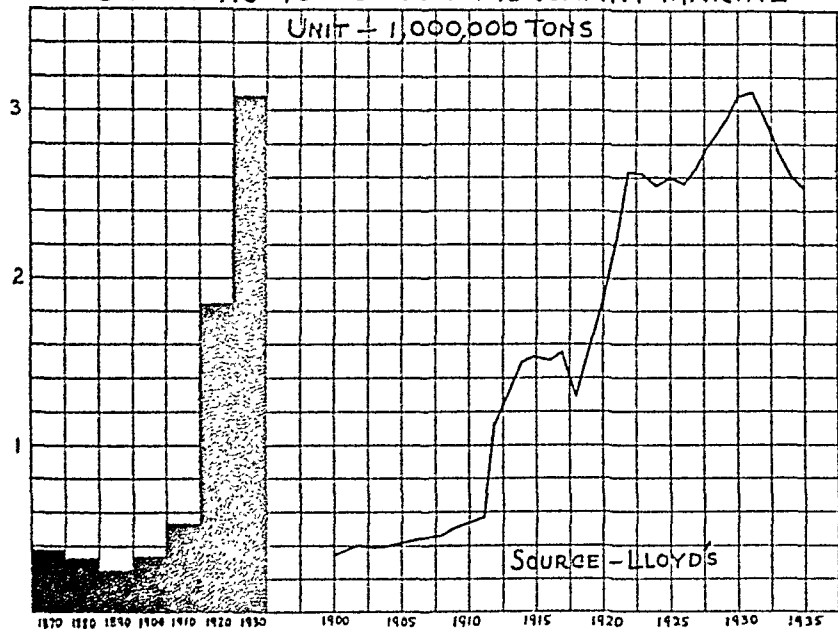


CHART No. 43 - DUTCH MERCHANT MARINE



Iron ships developed. William Inman of Liverpool established modern iron vessels with twin-screw propellers in an effort to capture the emigrant trade. He injured Philadelphia by changing his terminal point to New York to the advantage of that place. Other shippers followed his lead. Armored warships were tried in 1855 in the Crimean War. Other boats followed. Improvements in equipment and speed followed rapidly in the last three decades of the nineteenth century. By 1881 the Cunard Line's crack steamers had the transatlantic record close to seven days.

Unsuspected by the English the German Hamburg-American Line, organized in 1847, and the North German Lloyd Line, organized in 1857, were planning to capture records and by the close of the nineteenth century they had done so. England then produced the *Lusitania* and the *Mauretania* with a capacity of thirty thousand tons. The latter lowered temporarily the Atlantic record. The Italian *Rex* in August, 1933, set a new record, which fell about two years later when the French *Normandie* on her maiden voyage set a record of four days, eleven hours, and forty-two minutes. In the chief nations of the world competition as between companies has virtually ceased, competition between nations having taken its place in a rivalry which shows at the same time economy, extravagance, and the preparation for war. Competition also has taken the form of building the largest boats, many of which now exceed fifty thousand tons, the British *Majestic* heading the list until displaced by the *Normandie*. In 1936 the French vessel's records for both speed and size were disputed by the British *Queen Mary*.

Motor boats are of increasing importance, the way having been prepared by Rudolph Diesel, a German scientist, who in 1893 made the engine which utilizes crude oil. With the exception of England this new method is winning favor rapidly, most of the new boats of Denmark, Germany, Holland, Italy, Russia, Sweden, and the United States now being motorized. Gasoline motor boats are also being used on rivers and accommodations in general are being improved in the world-wide competition. Not all of the boats, however, are of the spectacular type. Tramp steamers, without a regular time sched-

ule, roam from place to place in their search for traffic, heavy commodities, and odds and ends and do a large part of the world's business. The tugboat, too, makes possible the bringing of the gigantic liners into port.

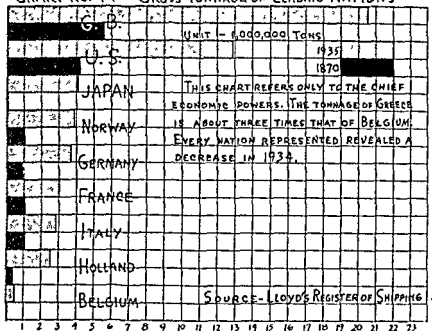
As early as 1624 Cornelis van Dribel, a Dutchman, invented a successful submarine rowboat. Numerous other inventors followed, Le Son, a Frenchman, for example, building a seventy-two-foot boat about 1652. Robert Fulton vainly sought to interest the French and then the English in a submarine. The Confederate *Hundley*, on October 17, 1864, successfully blew up the *Housatonic* in Charleston harbor, but sank with her victim. Not until the World War was the submarine again successfully used in warfare. In that struggle many boats were sunk and many lives were taken by submarines.

Submarines so far have attained little success in commerce. Rather they have been destroyers of commerce and shipping. On June 14, 1916, nevertheless, the *Deutschland* carrying Captain Paul Koenig and a crew of twenty-eight men left Bremen and after a delay of nine days at Heligoland reached Baltimore, Maryland, on July 10, a journey of approximately 3800 miles. It travelled above water except for a distance of about ninety miles. The boat carried 3042 cases, 125 tons net, of valuable dyestuffs, less than one-third of its net capacity of 447 tons out of a gross tonnage of 711. The boat made the return trip in twenty-one days with a load of rubber, crude nickel, and a consignment of gold. The *Deutschland* later made a second voyage across the Atlantic in seventeen days, reaching New London, Connecticut, on November 1, 1916, with ten million dollars worth of chemicals, gems, and securities.

The World War took a heavy toll from shipping, Great Britain alone losing approximately 7,750,000 tons. Germany lost about 2,750,000 tons and Norway, which from 1850 to 1870 was second to Great Britain as a world carrier and leads the world today in shipping, population considered, lost nearly 1,200,000 tons. Both France and Italy lost approximately a million tons, and Austria-Hungary, Greece, and the United States lost not far from a third of a million tons each. War losses have been in general replaced. The efficiency of the

1936-Italian 'pill boxes' is yet to be tested. The 1935-order for merchant marines was Great Britain, the United States, Japan, Norway, Germany, France, Italy, and Holland. Greece, Russia, Sweden, Spain, Denmark, and Belgium also are fairly important in tonnage; other countries, of course, have boats, but are of slight importance. Lloyd's Register of Shipping for July 1, 1935 listed 30,979 boats of one hundred tons or over with 64,885,972 tons.

CHART NO. 44 - GROSS TONNAGE OF LEADING NATIONS



Air Transportation.—The French were pioneers in aeronautics. Etienne and Joseph Montgolfier, sons of a paper bag manufacturer, built the first practical balloon. After seeing clouds float, they experimented with paper bags filled with smoke and on June 5, 1783, sent a linen balloon thirty feet in diameter a mile and a half in the air. On August 23, 1783, M. Charles sent a varnished silk bag filled with hydrogen gas to an elevation of three thousand feet over a distance of fifteen miles. Other experimenters followed. Gambetta used a balloon in escaping from Paris in 1870 in an effort to arouse the

provinces against the Prussians. Although the development of the dirigible and the airplane lessened interest in balloons, the various armies of the World War, nevertheless, used balloon corps.

The Robert brothers invented rubberized silk for balloons and in 1784 devised practical methods of propulsion by suspending a wooden boat attached to a ballon filled with hydrogen and moved by six men working oars. Rufus Porter, an American, in 1820 developed a power-driven balloon which had a screw propeller moved by a steam engine. Henri Giffard of France in 1852 suspended a car and motor run by a coke-burning boiler from a balloon. The engine turned an eleven-foot tribladed propeller. A speed of two hundred feet per second in low winds was attained. Charles Renard in 1884 in *La France* replaced the coke-burning engine with electric power. Germany, meanwhile, was experimenting. The two greatest names in the early history of dirigibles were Alberto Santos-Dumont, a Brazilian dwelling in Paris, and Count Ferdinand von Zeppelin of Berlin. The former jumped into prominence first, but the latter was probably the more important, his inventions having contributed in a marked way to the German war machine. Santos-Dumont's early experiments were with the non-rigid type; Count Zeppelin revealed great skill in the development of the rigid type. Major Scott of the British army travelled from England to the United States in four days in 1919 and made the trip back in three days. German dirigibles later lowered that record. In August, 1929, the *Graf Zeppelin* under Captain Hugo Eckner circled the world in forty-six minutes less than twelve days of actual flying, or in a little less than nineteen and one-third days of elapsed time. Individual fares for the few passengers were nine thousand dollars.¹⁰

Samuel P. Langley and Orville and Wilbur Wright were early pioneers in heavier-than-air passenger-carrying machines. Langley's lack of funds allowed Orville Wright the honor. On December 17, 1903, at Kitty Hawk, North Carolina, the first successful flight occurred. On May 14, 1908, Orville Wright and Charles Furnas made the first two-pas-

¹⁰ See *Ibid.*, pp. 237-244.

senger flight in history. A few months later Orville Wright crashed, his companion being killed. Knowing the French love of the spectacular and his own need of funds, on September 21, 1908, Wilbur Wright smashed distance records by flying 60.85 miles in ninety-one minutes. Then almost immediately he took a passenger up in the air, remaining aloft for seventy minutes. He got the contract, and the Wright fortunes began to improve. French and German inventors and flyers made improvements and set records. The World War greatly stimulated interest in aircraft. Three transatlantic flights were made in 1919, the earth was circled twice in 1924, Richard E. Byrd flew over the North Pole in 1926, and the next year Charles A. Lindbergh startled the world by making the first solo flight across the Atlantic, from Roosevelt Field to Le Bourget Field, near Paris, in one minute less than 33.5 hours. Within a few weeks Commodore Byrd and Clarence E. Chamberlain also flew across the Atlantic. Byrd, Bernt Balchen, and Ashley McKinley flew over the South Pole late in 1928.

New records are being set every year, speed now being well over four hundred miles an hour for the fastest machines and the world being circled in eight days or less, Wiley Post making in 1933 the 15,596-mile northern route in one week, eighteen hours, and 49.5 minutes.¹¹

Aircraft carry passengers, mail, valuable freight, and express, the leading cities of most continents being connected by air transport companies. Aeroplanes are well adapted for the transportation of fragile and perishable goods, notably glassware, eggs, and medical supplies, but even baby-grand pianos have been carried by aircraft. In rocky regions without railroads aircraft can carry machinery too heavy for animals to move and may keep out the railroads because of the enormous expense involved in railroad construction in such regions as the Balkans and parts of South America. The Treaty of Versailles forbade military aviation to Germany, but the Dutch Luft Hansa, heavily subsidized by the government, reaches all important European points. The Treaty of Versailles, moreover, has been discarded by Hitler. Great Britain, France, Italy, Russia, and Belgium grant heavy

¹¹ In August, 1935, Post and Will Rogers lost their lives in a crash in Alaska

subsidies to flying. Netherlands has a small military air force, but an extensive transport service reaching as far as the Dutch East Indies. Although little development has occurred in Spain and some other countries, every European country has air service.

Communication.—Quick communication has long been the desire of man. The smoke of fires, the light of lanterns, flags, shields, and the like have been used in the sending of messages. The development of roads and transportation facilities has facilitated the sending of letters and newspapers all over the world, a few nations perhaps having a per capita average of two letters weekly. The typewriter applies the principles of printing to everyday use, authors and business men employ shorthand typists, or dictaphones which compete with the shorthand typists.

The ancients knew the drawing properties of rubbed amber and the drawing power of the lodestone. In 1267 Roger Bacon explained the polar attraction of that stone. Pioneers with so-called sympathetic telegraphs, pitball telegraphs, spark telegraphs, electrolytic telegraphs, and electromagnetic needle telegraphs came, but little practical use of the telegraph appeared until Samuel F. B. Morse, profiting by the experiences of his predecessors, began to experiment with the electromagnetic recording telegraph. On April 7, 1838 he applied for a patent; it was granted October 24, 1838. In 1839 Morse completed an experimental line from Washington to Baltimore, about forty miles. The worth of the line was speedily demonstrated, but the government, on the advice of the postmaster-general, refused to buy Morse's rights for one hundred thousand dollars. Private capital came to Morse's aid, and by 1851 fifty companies were operating under the Morse patents in the United States and by 1861 such systems were employed in Europe.

Virtually everywhere telegraphs are controlled by the governments. The Morse system is used widely in Bulgaria, Portugal, Sweden, and Sicily and to a considerable extent in France, Great Britain, Italy, and Russia. Other systems are found in other European countries. The invention of duplex telegraphy allowed the sending of two messages over the

same wire in opposite directions at the same time. In England and the United States as many as eight and twelve messages are sent over one wire at the same time, averaging forty and thirty words respectively to the minute. World telegraph wire mileage is well over 7,100,000, nearly one-third being in the United States.

The first submarine cable connected Calais and Dover in 1850, but not until 1851 did the cable service between England and France really begin.¹² Within a few years England had several cables to adjacent shores, Denmark and Sweden had connections, and cables appeared in the Mediterranean. Cyrus W. Field and Lord Kelvin were the pioneers in laying a cable across the Atlantic. In 1857 the cable broke at a depth of two thousand fathoms; in 1858 a cable worked for three months. The cable in 1865 broke when laid for two-thirds of the way, but the second was laid successfully in 1866 and the end of the 1865-cable was found and its laying was completed. Of course, numerous other cables followed, the Atlantic now being crossed by twenty-one cables connecting Europe and North America. Cables also have appeared in other parts of the world, the number being about 3500 and the mileage approximately a third of a million. Perhaps more than any other one person Werner von Siemens was responsible for the practical development of the cable.

In 1876 Alexander Graham Bell invented the telephone for transmitting sound electrically. By the end of the nineteenth century the telephone was in common use in all civilized countries. It was first exhibited in France at the World's Fair in Paris in 1878. The next year the first telephone exchange in London was opened with only seven or eight subscribers. In Germany toll lines appeared first as a substitute for expensive telegraph lines. The telephone was a government monopoly in Germany from the beginning. The Switzerland government opened its own exchanges in 1881 and 1882. The Belgian government bought private exchanges in 1896. A similar course was followed in Austria and Hungary, but only temporarily in Italy. In most of the eastern countries, however, the telephone is a government monopoly. Norway,

¹² See Clark, G. N., *Unifying the World* (The Swarthmore Press, Ltd., London, 1920)
p. 31

Sweden, and Denmark are European leaders, the last leading Europe in number of telephones in proportion to population. Europe now has only half the telephone mileage of the United States, which has three-fifths of the world's total mileage of about 140,000,000. Europe likewise has only half as many telephone stations as the United States which has nearly three-fifths of the world's total stations of about 35,000,000. Everywhere, to be sure, efficiency has increased, automatic telephones competing with the girl-operated phones. Both systems, of course, have disadvantages; you may dial the wrong number or you may hear the words "Line Busy" so often that you will want to go fishing in order to find a line not busy.

J. Clerk Maxwell, Heinrich Hertz, and Dr. O. Lodge were pioneers in the theory of wireless telegraphy, but G. Marconi of Italy was the practical inventor whose experiments became significant in 1895. Gradually the distance messages could be sent increased, Marconi in December, 1901, effecting communication between Poldhu in England and St. Johns in Newfoundland. Wireless is not particularly efficient for military affairs, because any one with the proper apparatus can pick up the messages, but since 1914 it has been widely employed at sea. Unless radios are eradicated or made so weak that distant messages can not be heard the task of barring hostile propaganda is impossible. For the wireless today makes the world one, radios being able to pick up messages sent around the world. On January 1, 1935 there were about 48,300,000 radio-receiving sets in the world, representing about 193,000,000 listeners.

Television is even, by electrical transmission devices, showing what is happening at a distant place. The beginnings occurred about 1925 and even yet the television pictures are rather crude. The practical use of television is, consequently, in the future.

Developments in communication, like the developments in transportation, tend to unify the world and to multiply its resources. By telegraph, cable, telephone, wireless and the like messages are sent all over the world. The merchant is less susceptible to losses, but also to profits, through price fluctuations, for he does not need to carry such a large stock

on hand. By that very fact his money can be made to do more service, for he can keep a larger proportion than formerly free for emergency or for profitable use at once. The need of raising money immediately under the old system might lead to forced sales, meaning, to be sure, low prices. Market quotations daily by wireless or through the papers keep buyers and sellers alike informed of conditions and conserve money for both. Farmers can learn prices early in the day and deliver their products on the same day if the prices are suitable. In the period prior to rapid communication they might learn the prices one day, encounter bad weather, and a few days later when they made deliveries find that prices had fallen, disturbing, of course, to them. Retail trade in the cities and small towns is doubtless promoted by the improvements. A woman without children, for example, might do without an article rather than make a trip to the nearest store. Now she merely takes down the telephone and orders the desired article. Modern methods of communication thus have a commercial import for all concerned.

SELECTED REFERENCES

Berglund, Abraham *Ocean Transportation* (New York, Longmans, Green and Company, 1931) Chapters IV and V.

Dawson, Philip. *Germany's Industrial Revival* (New York, The Macmillan Company, 1927) Chapter IX.

Goldstrom, John. *A Narrative History of Aviation* (New York, The Macmillan Company, 1930) Chapters V, VIII, and IX.

Johnson, E. R., Huebner, G. G. and Wilson, G. L. *Principles of Transportation* (New York, D. Appleton and Company, 1928) Chapters LV and LVIII-LXI.

Pratt, E. A. *The Rise of Rail-Power in War and Conquest* (London, P. S. King and Son, Ltd., 1915) Chapters X-XV.

St. Clair, Labert *Since Time Began Transportation, Land, Air, Water* (New York, Dodd, Mead and Company, 1933) Chapters I-V.

Salter, J. A. *Allied Shipping Control* (Oxford, The Carnegie Endowment for International Peace, 1921) Part IV, Chapters I-III.

Splawn, W. M. W. *Government Ownership and Operation of Railroads* (New York, The Macmillan Company, 1928) Chapters I-V.

CHAPTER XXVII.

TARIFFS AND TRADE RESTRICTIONS

Introduction.—Although Greece, Rome, and other countries of antiquity levied customs duties or tariffs, duties prior to the eighteenth century were usually local for the use of roads and bridges, rivers and harbors or for the protection and the safeguarding of goods or persons. Such duties were not levied at a country's boundaries, but at trade centers within a country. Imports, exports, and transit goods alike paid the duties, perhaps several times, dependent upon the number of market towns through which they passed. Only gradually did distinctions develop between fees obtained at city gates and bridges and fees collected at the boundaries when goods entered a country. The former were designated as tolls; the latter were called customs duties.

This distinction grew out of the mercantilist theory that a country should be self-sufficing. Tariff regulations were used to develop the economic life of a country. The idea of tariff for revenue, long the chief consideration, gave way to protection, or the effort to stimulate home manufactures by heavy taxation on competing articles. Raw materials or goods necessary for manufactures were admitted free or at low duties. The development of outlying parts of the world and the great reduction in freight rates forced many nations to extend protection to agricultural products, particularly to meat and the cereals. Export duties, never common and now virtually abolished, being dropped by Germany in 1873 and by France in 1881, were at times used to keep at home raw materials necessary to home manufactures which might otherwise suffer.¹ Since 1850 transit duties have been dropped gradually, for every

¹ See Plehn, Carl C. *Introduction to Public Finance* (The Macmillan Company, New York, 1926) p. 145.

country wants as much trade as possible to use its railroad and steamship lines. At Barcelona in 1921 an international convention reached agreements relative to the free transit of goods. Gradually the internal barriers to trade disappeared, lingering on in Turkey, Brazil, and China to a very late date, to January 1, 1931, in the last-mentioned country.

Duties usually fall under one of three heads, specific, ad valorem, or compound. The first is a stated amount of money per unit of measurement as yard, gallon, pound, or ton; the second is a percentage on the cash value of the article; and the third is a combination of the two duties. Revenue duties are levied usually on things not produced in the taxing country, articles whose value is not augmented by changes after importation. Such are the taxes on tobacco, tea, spices, and coffee.

Tariffs now are seldom single-rate tariffs. Rather the tariff has two columns, the low rates being given to the most-favored nations and the high rate being applied to all other countries. The tariffs are complicated still more by the fact that they may be general and conventional, or maximal and minimal. In the first instance the conventional or lower rates are reductions granted to particular nations by commercial treaties; in the other case both the lower and higher duties are specified in the law and can not be changed below or above these rates by treaty. Minimum and maximum duties protect home industries from unexpected changes but make difficult reciprocal reductions, for the minimum rates naturally follow in the most-favored-nation treatment. Even more than two columns may appear in tariffs as when a country desires to give preference to her colonies. Non-favored-nations then pay the high duties; the most-favored-nations pay medium duties; and the colonies of the mother country pay the lowest duties. At times French tariffs have even exceeded three rates on the same products, for specified countries paid rates varying from a little above the minimum to a little below maximum.

Differential tariffs may result from the decrease in the conventional or minimal tariffs or from the increase in the general or maximal tariffs. Since 1850 or thereabouts, however, such tariffs have decreased. England and France once used

the so-called "flag surtaxes" imposing higher duties on products imported in boats flying a foreign flag in an effort to develop their own merchant marine. Some countries still charge duties on goods passing through them to a third country, but the practice seems to be declining. Austria once gave special rates for sea commerce in contrast to land trade, but the practice was regarded as contrary to the most-favored-nation treatment. In recent decades anti-dumping duties have increased in importance in an effort to prevent foreign exports from being dumped on home industries at ruinous prices. Tariffs usually make provision for tariff wars by allowing retaliation against countries which give unfair treatment of imports. The retaliation generally takes the form of increasing general or maximal duties by a specified percentage.²

Efforts have been made in recent decades, notably in the United States, to make tariffs in a scientific way. Great Britain in 1925, through a committee of the Board of Trade, also began an attempt. The next year Ireland employed a tariff commission of three members, but such committees or boards had little real power. Customs unions likewise reveal a scientific approach to tariff policies. Suggestions for such unions were numerous but unfruitful in the nineteenth century. More recently a Danube confederation of the states of the old Austro-Hungarian monarchy, a Union Fédérale Européenne urged by Briand, and a confederation of eastern agrarian states have been suggested. Latvia and Estonia agreed on a customs union in 1927, but little success has been attained. By the Oslow Agreement, an elastic arrangement used by Belgium, Luxemburg, Holland, and the Scandinavian countries, the participating countries did not deny the right of the separate countries to increase tariffs but gave to each the right to denounce the agreement if one of the participants, despite its implied promise, raised custom rates. In 1932 Belgium, Holland and Luxemburg also agreed upon a customs union. Such organizations, however, have as yet revealed little strength.³

Although generalizations are dangerous because of the ex-

² See Gruntzel, Josef in *The Encyclopaedia of the Social Sciences* (The Macmillan Company, New York, 1931) Vol. IV, pp. 667-673.

³ See Pentmann, J. in *Ibid.*, Vol. IV, pp. 673-677 and *Foreign Policy Reports. Tariff Issues Confronting the New Administration*, March 29, 1933, Vol. IX, No. 2, p. 23.

ceptions, Europe's tariff policies may be classified very roughly in five periods. In the closing part of the eighteenth century and the first quarter of the nineteenth century duties were high. During the second quarter of the nineteenth century here and there considerable gaps appeared in the walls of protection. The third quarter of the century witnessed great breaches in the walls of protection in several important countries. Beginning with 1875 or 1880 and lasting until 1914 the general tendency was to revive high tariffs. The World War with its intense nationalism and the Great Depression with its unemployment and suffering virtually everywhere accentuated protection. Today, consequently, virtually all countries of Europe have high tariffs and other restrictive measures directed at imports.

England.—Quesnay, Gournay, Turgot, and other French Physiocrats, regarding agriculture as the sole source of wealth, championed *laissez faire* and the freedom of trade. Adam Smith, who in 1776 published his epochal *Inquiry into the Nature and Causes of the Wealth of Nations*, however, was the first great influence in breaking down trade barriers in England. His book became an influence in the repeal of duties both on manufactures and grain, for the advocates of low tariffs often accepted it as their Bible.

When, however, England entered the nineteenth century, she had on her statute books some fifteen hundred laws which had been passed in the previous five centuries. Duties were so high that they imposed a serious burden on legitimate business, and smuggling gave only a partial relief, for the smuggler's charges amounted to from one-sixth to two-fifths of the ordinary charge. About 1820 the demand for reform began to bear fruit.⁴

Huskisson five years later secured the simplification of the laws, the reduction or removal of taxes on raw materials, the lowering of duties on manufactures to approximately thirty per cent, and the removal of a large part of the export restrictions. In 1842 Sir Robert Peel secured reduced duties for some 750 articles and three years later the abolition of 430 duties out of 813.

⁴ See Bland, A. E., Brown, P. A., and Tawney, R. H. *English Economic History. Select Documents*, p. 698, for a petition of that year to the House of Commons

About the same time the war against the corn laws reached its climax. For centuries England had sought to help her farmers by heavy duties on imported grains. Adam Smith had pointed out the effect of such laws:

To prohibit by a perpetual law the importation of foreign corn and cattle, is in reality to enact that the population and industry of the country shall at no time exceed what the rude produce of its own soil can maintain.⁵

As England developed industrially artificial grain prices injured her workers. Richard Cobden, John Bright, reluctant Sir Robert Peel, and the Anti-Corn Law League members pointed out the harmful effects and the possible discontent of such selfish class legislation. A Manchester meeting, January 23, 1839, shortly prior to the creation of the League, condemned the corn laws as very harmful to the poor and pledged itself "to a united, energetic, and persevering effort for the total and immediate repeal of all laws affecting the free importation of grain."⁶

With skilled leaders guiding the agitation and with Peel, battling in Parliament, the corn laws fell in 1846, except for a registration duty of a shilling a quarter which lasted until 1869. Manufacturers, aggravated by the labor legislation, were glad to let the laborers have cheap food at the expense of the farmers and especially so because with a low cost of living wages would not need to be so high. Grain products from the United States and other countries entered England and increasing amounts of English goods, especially with our low Walker Tariff of 1846, left the country for America and elsewhere.

The European navigation laws had received severe jars through the establishment of the United States and various South American republics. The Napoleonic struggle, too, had led England to grant trade privileges to neutrals. Then the United States by adopting a policy of reprisal and threats of like action by other nations caused England to negotiate a series of treaties granting foreign ships equal privileges with

⁵ *The Wealth of Nations* (P. F. Collier and Son, New York, 1902) Vol. II, p. 169.

⁶ See Bland, A. E., Brown, P. A., and Tawney, R. H. *English Economic History. Select Documents*, p. 702.

the English. By 1830 the only advantages enjoyed by the English were in the coasting and colonial trades. Even those privileges were swept away in 1849 and 1854. The sweeping away of the corn laws and the dropping of navigation laws broke the backbone of protection in England. Gladstone's laws of 1853 and 1860 swept away duties by the hundreds, the latter leaving the number at forty-eight. The hops duty was dropped in 1862, the timber duty four years later, the registration duty on grain in 1869, and the sugar duty six years later. By 1914 the duties were down to about a score, food being free except for revenue duties on currants, cocoa, and tea.

Yet even when duties were being reduced, agitation for higher tariffs began. This agitation received marked impetus from the fact that European countries in general were raising their duties, thus subjecting English products to duties ranging from ten to thirty per cent usually but to as high as 130 per cent in the case of Russia. Foreign nations not alone excluded or restricted British goods, but they dumped their own surplus products on English markets, thereby maintaining higher prices in their more important home markets. One group in England desired a regular protective tariff, another group wanted duties designed to stop dumping, and a third group desired a preferential tariff system which would draw the colonies closer to the mother country.

Many of the colonies, however, questioned the English doctrine of colonial preference. That attitude is revealed by the *Melbourne Age*, October 5, 1904, for that paper insisted that a preferential trade policy in Australia meant "a considerable increase of duty as against the foreigner" rather than a reduction of duties on English goods. In Canada and elsewhere many people insisted that home manufacturers should be given protection against English clothing, much of which was cheap, damaging to health, and subject to excessive deterioration.⁷

Joseph Chamberlain wanted to levy a general duty on imported foodstuffs, giving the colonies preference through lower rates. He desired also to protect English industries

⁷ See the *Quarterly Review*, January, 1913, Vol. 218, pp. 188-190 for a detailed discussion.

against unfair competition by small duties on imported manufactures. In an effort to win votes Chamberlain and his friends declared that the rich would reap profits by decreases in direct taxation because money would flow in from the tariff duties. To the poor the friends of the tariff declared that even if they should have to pay more to the state by indirect taxation, which they were told would not be so, they would obtain greater benefits because of steadier employment, higher wages, social insurance, and the like. The agricultural interests were told that tariffs would revive agriculture. All groups were told that the political ties binding the colonies to the mother country would be strengthened by economic ties through a sort of imperial custom union. By the time of Chamberlain's death in 1914 most of the Unionists had been won to the side of protection.

When the World War began, protectionism was intensified. As early as 1915 England imposed heavy duties on such manufactured products as clocks, watches, musical instruments, motion picture films, and motor vehicles. Two years later England asked her colonies to build up intra-imperial trade through legislation. Since 1919 colonial products have been granted reductions from the regular customs duties. By the close of the war fairly high rates were levied on such products as alcoholic beverages, tobacco, molasses, dried fruits, sugar, cocoa, chicory, and coffee. In 1921 the Safeguarding of Industries Act allowed a surtax of thirty-three per cent on all foreign goods, except food and drink, if the Board of Trade thought that their importation would harm English industry. In addition to the anti-dumping duty, the act provided that for five years a duty of thirty-three per cent be paid on such key industries as certain chemicals, compounds of rare earth, tungsten, magnetos, laboratory porcelain, and optical instruments. Other increases have occurred. In some cases the British import rate in 1931 passed the hundred per cent mark and the general increase in early November was about seventy-five per cent. On March 1, 1932, a minimum tariff of ten per cent additional to that operating against gold countries through the depreciated pound went into operation. In April, the principle of the old corn laws found new expression in an

act which established import quota control and guaranteed British farmers about a dollar a bushel for fifty million bushels of wheat. In early May a special import duty with an average of approximately twenty per cent was levied against most manufactured goods. Neither the wheat act nor the tariff was to apply to the dominions until the Ottawa Conference had been held.⁸

That conference evolved an economic plan, adopted, though with loopholes, for a period of five years, to increase the commerce and the prosperity of the British Empire as a unit. Except for the Irish Free State Great Britain surrendered "her right to impose duties on the imports from British countries that she now places on foreign goods," thus continuing as a free market for the natural products of her colonies. Great Britain, moreover, agreed to levy a tariff on corresponding products from foreign nations. The colonies agreed, in return for these concessions, to give new preferences to British manufactures, to increase the free list for British products, and to levy tariff duties on similar goods from foreign countries. Criticism has appeared both within and without the empire, but Great Britain with her numerous colonies is in a better position to develop a protective scheme for the empire as a whole than is any other country.⁹ Her scheme, let us hope, may bring the world to sanity on tariff matters.

Yet so far even a myriad-eyed man can see little change.¹⁰ The world is still trying to realize the old mercantile ideal of selling more than it buys. A few countries may sell more than they buy, but all cannot do that. If any country persistently discriminates against other countries, it arouses retaliation. Tariff wars are very common and under them trade has dwindled, by 1933 falling to one-third of the amount in 1929 and in 1934 and 1935 lagging behind industry in recovery.

France.—France was inclining toward a low tariff when the Napoleonic struggles began. From 1793 to 1814 her tariff

⁸ See *Current History*, January, 1932, Vol. XXXV, pp. 591-593, and July, 1932, Vol. XXXVI, pp. 423-428.

⁹ See the *Literary Digest*, September 3, 1932, Vol. 114 No. 10, pp. 5, 6 and November 26, 1932, Vol. 114, No. 22, p. 10. In an effort to market her coal, steel, and other products England is agreeing in individual treaties to buy specified quantities of given products from other nations.

¹⁰ See *The I. L. O. Year-Book*, 1932 (Geneva, 1933) p. 63 and current League of Nations' publications.

policy was determined by her hostility to England. Duties were raised repeatedly even after 1814, in some instances giving protection of more than a hundred per cent.

Yet in 1822, a commercial treaty was negotiated with the United States and four years later one was made with the United Kingdom admitting their ships to the rights enjoyed by those of France. From 1830 on low tariff sentiment began to gather strength due in part to the leadership of Frédéric Bastiat.

Under the second empire some reductions were made, chiefly by the suspension of duties on foodstuffs by executive order, subject to legislative sanction. In 1860 the Cobden Treaty with England provided that the English government abolish certain duties on French products and reduce others. France agreed to stop all prohibitions and to levy duties not to exceed thirty per cent *ad valorem* for four years and thereafter twenty-four per cent. Within the next six years somewhat similar treaties were negotiated with Belgium, Germany, Switzerland, Italy, Norway and Sweden, Holland, Austria, Spain, and Portugal.

But the trade treaties were unpopular, especially with iron masters, cotton spinners, and other manufacturers. In the late seventies a period of depression hit French industry and in 1881 specific duties supplanted *ad valorem* duties, the approximate increase in the rates being one-fourth. Eleven years later a new law gave agriculture the protection virtually denied in 1881. It also adopted maximum and minimum duties. A new tariff was enacted in 1910 because new articles such as typewriters and automobiles had entered into world trade, many of the important European nations had modified their tariff policies, minimum rates rather than maximum rates were in general operation, and the difference between the two was considered too small. In general, the tariff increased both minimum and maximum duties and made the interval between the two about fifty per cent, or three times the previous interval.¹¹

Starting in 1916 the government imposed restrictions on

¹¹ See Delle-Donne, O. *European Tariff Policies Since the World War* (Adelphi Company, New York, 1928) p. 174 for comment on the numerous tariff arrangements and conventions with foreign nations before the World War.

imports through higher rates or the prohibition of luxuries. The government, too, granted to certain associations the exclusive right to import such things as cotton goods, jute, petroleum, paper pulp, and fatty materials and to other associations it granted the right to import raw materials for government manufacture.

Since 1919 France has used three rather distinct policies. Shortly after the war she dropped the unconditional most-favored-nation treatment for less favored treatment or reciprocity. In 1921 she raised her general tariff and reduced the concessions which foreign nations could obtain by negotiation. In 1927 France, perhaps fearing reprisals, came back to the unconditional most-favored-nation treatment. She, moreover, in the new treaties of 1927 and 1928 promised not to increase rates on about three-fourths of the items in her tariff schedule, agricultural products generally being exempt from the promise. Since the World Depression starting in 1929 France has increased rates in a marked way, often more than a hundred per cent on agricultural products.¹² Of course, she has made numerous treaties providing for reciprocal reductions, as with Germany in 1927¹³ and the United States in 1936, but, despite the use of quota restrictions, her duties have continued to rise.

Germany.—At the beginning of the nineteenth century virtually all German states had high tariffs. Prussia in 1800 had sixty different tariffs with duties on about three thousand articles of trade. After the reduction of the states to thirty-eight or nine, conditions were simplified somewhat. In Prussia Stein and Hardenburg had effected some reductions and in 1819 a liberal law went into effect. This act abolished all internal customs barriers, allowed raw materials to come in free, removed all prohibitions on importations except salt and playing cards which were government monopolies, and imposed an average duty of about ten per cent on imports.

The period from the close of the Napoleonic Wars to past the middle of the century was the period of the Zollverein, or Customs Union. Giving up her policy of enforced absorp-

¹² See *Foreign Policy Reports, French Financial Policy*, December 7, 1932, Vol. VIII, No. 20, p. 240.

¹³ See Delle-Donne, O. *European Tariff Policies Since the World War*, pp. 185, 186

tion Prussia used tact, but, nevertheless, dominated. By 1852 all of Germany was included except Hamburg, Bremen, Lubeck, the Mecklenburgs, and Austria. The union rested upon treaties. Annual conferences were provided for, changes were to be made by unanimous approval, no duties were to be levied on products carried from the territory of one member to another, each state was to retain its monopolies and commercial code, and the proceeds of the tariff were to be divided among the members in proportion to population. The Zollverein disappeared in 1867, but in the same year the North German Confederation made a treaty with the southern states,—Bavaria, Baden, Wurtemberg, and Hesse,—favorable to free trade. The new Customs Union included all of the German states with the exception of Hamburg and Bremen. Changes in tariff schedules might be made now by majority vote in the Customs Union Council. In 1868 a treaty with Austria provided for reductions on drugs, steel, iron, and other products and 1870 saw still other reductions.

The establishment of the empire witnessed a change in administration and also in tariff levels. Germany formed one customs union and the empire had "exclusive power to legislate concerning anything relating to the customs." Collection of the duties was left with the states; the proceeds after the cost of collection and of protecting the frontier had been met were turned over to the empire. In 1879, law provided that at the end of each year, customs and tobacco receipts in excess of 130,000,000 marks should be returned to the states in proportion to their population. The change in tariff levels was downward for a while. In 1873 iron duties were lowered and four years later they disappeared. At that time ninety-five per cent of all goods entered the country free.

Many people, however, long had been opposed to low tariffs. In Friedrich List they found a champion who argued ably that free trade or protection should rest upon a country's economic position. England, having passed from an agricultural to an industrial state, could safely do without protection, but Germany yet in the agricultural stage needed protection until she had made safely the transition, at least so argued List. Iron, cotton, and other manufacturers took up this argument

and in 1878 they formed the Central Union of German Manufacturers. They were aided by the agricultural interests which were suffering from Russian and American competition. In 1878 Bismark broke with the Liberal Party and took up the fight for protection and the next year Germany returned to the traditional high tariff policy which has been continued. In 1885 and 1887 duties were increased materially on grains and meats.¹⁴

The Tariff of 1902 recognized 946 classes of imports, about two hundred remaining duty free, lowered duties on most raw materials, abolished taxes on numerous articles used by the farmers, and increased the duties on livestock, meats, and grain, provided minimums below which reductions could not be made by treaty in the case of wheat, oats, barley, rye, and spelt, and increased the duties on manufactured goods. The tariff made provision for treaties allowing mutual reductions and many such treaties or most-favored-nation agreements were made with the large commercial countries. With other nations the general tariff was enforced.

The Tariff of 1925 revised approximately 400 of the 946 headings of the Tariff of 1902, increasing duties on various manufactures and also on agricultural products. Chemicals and textiles were the favored manufactures and cattle and horses were particularly protected in the agricultural groups, the average for horses rising from 150 gold marks to 500. Sheep and hogs, formerly on the free list, were now protected. The same statement is applicable to cane and beet sugar, vegetable oils, fatty oils, margarine, margarine cheese, condensed milk, and flour. Minimum rates not to be lowered by tariff were provided for cattle, sheep, and swine.

Meanwhile both before and after the passing of this law commercial treaties were made with various states including the Belgium-Luxemburg Economic Union, Greece, Norway, Turkey, Russia, Holland, Honduras, Portugal, Spain, Denmark, Finland, Latvia, Italy, and France, carrying reciprocal features and generally based on most-favored-nation treatment.¹⁵

Italy.—In the first half of the nineteenth century Italy was

¹⁴ From 1890 to 1902 some reductions were made, changes violently opposed by the League of Farmers which had come into existence in 1893

¹⁵ See Delle-Doune, *O European Tariff Policies Since the World War*, pp. 213-222.

very backward, being cut by numerous state lines and various tariff barriers. Merchants were compelled to stop every score or so of miles in 1840 and to pay customs duties. With the establishment of the kingdom of Italy the old internal trade barriers disappeared and extreme duties were modified. In 1878 and 1887, however, Italy increased her duties, the last-named tariff leading to a destructive trade war with France. Shortly prior to the World War Italy liberalized her tariff duties somewhat, but that war, as elsewhere, intensified the protectionist sentiment.

After several years of study and investigation Italy adopted a new tariff in 1921. Basic duties were generally the minimum duties proposed by the Royal Commission of 1913, but the introduction of "coefficients of increase," generally varying from 1 to 2, allowed marked increases, as did similar systems in Belgium, France, Czechoslovakia, Spain, and other countries. The idea was at least partially to equalize differences in cost of production at home and abroad, but also to help new industries. Surtaxes were charged when duties were not paid in gold, the rate at first being fixed fortnightly and then weekly as determined by Italian exchange in New York. The 472 schedules of the old tariff now became 953, due largely to the technical changes and industrial progress from 1887 to 1921. In general, duties were increased in a marked way and raw materials entered free to the benefit of manufactures. Little protection was accorded to agricultural products by this tariff and agricultural machinery was heavily taxed to the injury of the farmer. Textiles and pig iron were especially favored; for example, pig iron was increased from one gold lira per quintal to 1.25 gold lire plus the highest coefficient in the tariff, 2.5, thus raising the duty to 4.375 gold lire to the quintal. Various decrees have modified the tariff somewhat.¹⁶ The most marked increases in recent years have been in the case of agricultural products, notably wheat.

Russia.—Prior to 1824 Russian tariff duties were so high as virtually to restrict imports. During the second quarter of the nineteenth century, however, largely because of smuggling and the growing conviction that lower duties would

yield more revenue, reductions were made. The third quarter witnessed numerous reductions, notably in 1850, 1857, 1859, 1864, and 1868. These reductions promoted the importation of agricultural, industrial, and transportation machinery, thus preparing the way for the rise of the Industrial Revolution. In 1877 Russia returned to the protective tariff, the order requiring that duties be paid in gold in place of depreciated paper money increasing duties by half. Other increases occurred in the eighties and culminated in the Act of 1891.

That measure consolidated and systematized previous acts and extended protection to include raw materials and semi-manufactured goods. Especially heavy were the duties on coal, machinery, and steel. A damaging tariff war with Germany led to the conclusion of a most-favored-nation treaty in 1894. During the next decade protection continued, general increases being provided for in 1903 in anticipation of the expiration of treaties. The new treaty, negotiated with Germany in 1904 and effective until 1917, provided for mutual increases. The tariff policy may have promoted industrial growth, but it placed a heavy burden on agriculture. Since the war tariff increases and trade regulations have restricted Russian commerce.

Other Countries.—When Belgium became independent she made more strict the rather low tariff inherited from Holland. After 1850 lowered tariffs and commercial treaties stimulated her trade. Low tariffs, however, did not continue, the post-war tariff enacted in 1921 showing the usual tendencies. Holland, like England, a commercial country, normally desired a low tariff, but during the union with Belgium she gave protection to her industries. For a couple of decades after 1830 she clung to protection. Since then her policy has varied much as other nations, but on the whole with more moderate duties than most countries. On June 20, 1932, the Netherlands, Belgium, and Luxemburg established a customs union. Each state agreed not to create any new duties and to lower existing duties ten per cent a year until an established level was reached. The early restrictive tariffs of Denmark were liberalized in the nineteenth century and the internal duties were abolished. A reciprocal trade agreement with England

in 1933 favored Danish bacon, ham, eggs, and butter and English coal and steel. Norway in the nineteenth century was dominated by Sweden which from 1865 to 1888 used a modified system of free trade. In 1888 and 1892, however, protective policies were resumed. In 1933 Norway entered into a reciprocal trade agreement favoring Norwegian wood products and English coal. Finnish commerce, though protection was denied in large part to grain-growers prior to the war, was restricted by the protective tariff, an inheritance from Russia. A reciprocal trade agreement, especially solicitous for English coal, attempted in 1933, to continue England's use of Finnish products. Estonia, Latvia, Lithuania, and Poland generally followed by inheritance the Russian example. Attempts to form a customs union have not been especially successful.

In central Europe conditions are much the same as elsewhere. In the first half of the nineteenth century Switzerland suffered from restrictive tariffs. When the republic was established in 1848, Switzerland swept away the barriers to internal trade. During the third quarter of the nineteenth century she took advantage of the prevalent low tariffs to increase her trade. Since 1870, however, she has become more and more protectionist, an attitude due in part to the high tariffs of Germany and France and to the demands of the Swiss manufacturing interests. A high tariff went into effect January 1, 1906. It was intended to force better terms in future commercial treaties but at the instigation of the wealthy manufacturers the protective features were marked. During the first half of the nineteenth century Austria-Hungary's system of prohibitive tariffs was more strictly adhered to than in almost any other state in Europe. Tolls and tariffs, moreover, restricted trade. Internal trade became free in Austria in 1826 and virtually everywhere else in 1851. Customs duties, however, handicapped trade in the last quarter of the nineteenth century and the opening decades of the twentieth century, the chief law being enacted in 1906. The new divisions of the old empire are also protectionist, tariffs being particularly high in Austria and Czechoslovakia and moderately high in Hungary. Poland also has adopted a high tariff.

Customs duties varied in the Iberian and Balkan countries. During the first half of the nineteenth century the commerce of Spain was hampered greatly by export and import duties which included not alone rates of fifty to a hundred per cent but actual prohibitions. An army of nearly a third of a million people, one-third armed, busied itself in smuggling. Some government officials were engaged in the traffic and some manufacturers kept factories only to mask the sale of illegally imported goods. Near the middle of the century the worst features of the tariff system were reformed, but Spain by inheritance is a protectionist country. Portugal's commerce, like that of Spain, has been handicapped by high duties. Even the Balkan countries, largely agricultural, indulged in protective tariffs, and in recent years Greece, Rumania, and Yugoslavia in particular have turned to high tariffs. In fact, scarcely a European country has escaped the post-war pandemic of tariff increases.

Other Commercial Barriers.—The second manifestation of the deadly pandemic of trade restrictions appeared in the 1931-tendency to set import quotas. Such quotas had been used by private international cartels in order to limit production, to divide markets, or to maintain prices. Governments adopted their use, usually on the demand of the domestic trade organization concerned, fixed the amount of a certain commodity the principal importing nations could send in a specified time, usually three months, and made a small provision for "other countries." Quotas usually allowed the importation of a designated percentage of the average importation of the quota commodity for one, two, or three years. Early in 1933 Austria, Belgium, Czechoslovakia, Denmark, Estonia, France, Germany, Greece, Hungary, Italy, Latvia, the Netherlands, Norway, Poland, Portugal, Rumania, Spain, Switzerland, and Turkey of European countries had import quotas, France being the worst offender.¹⁷ In 1934 Italy, Netherlands, Spain, and many other countries increased their use of quotas.

Closely related to the quota system was the use of import monopolies and prohibitions prevailing early in 1933. Estonia,

¹⁷ See *Foreign Policy Reports. French Financial Policy*, December 7, 1932, Vol. VIII, No. 20, pp. 240, 241.

Sweden, and Turkey used import monopolies and Italy, Portugal, and Spain even forbade the importation of specified products. Denmark and Spain issued permits for the exportation of certain products and an English colony, New Zealand, for all exports.¹⁸ In 1934 Germany, the Netherlands, Latvia, Great Britain, Czechoslovakia, and Italy used import monopolies or some central trading agency, especially in the case of foods and raw materials.

Exchange restrictions, a third manifestation of the pandemic, are discussed in a later topic, for they were taken to protect currencies. At times, however, they dammed international trade as effectively as did tariff increases and quotas combined. Austria, for example, granted foreign exchange only to purchase necessary commodities and even then only for a small percentage of the sum needed for complete payment. By the close of March, 1932, twenty-four countries (seventeen European) out of thirty-two dealt with on the Paris Money Exchange applied exchange restrictions. The list by early 1933 had mounted to thirty, Central and South American countries being as bad as Europe. In 1934 Germany and Rumania increased their exchange restrictions.

Countries, desirous of maintaining their gold currencies and meeting their obligations, attempted at all costs to secure an excess of exports over imports. In 1934, Great Britain, the Irish Free State, and Germany used bounties in an effort to stimulate a favorable trade balance. Unable to sell more, however, most countries bought less.¹⁹ So tariffs, prohibitions, quotas, and exchange restrictions multiplied rapidly. Distrust in the internal institutions of such strong creditor countries as the United States was manifested by internal hoarding and the withdrawal of foreign balances. Says Sir Arthur Salter:

... We have therefore had the spectacle of the whole world trying to export more than it imports—or more exactly, to import less than it exports, since the only practical means of action was to stop purchases. The pursuit of this impossible goal by separate national action in restraint of

¹⁸ See *The I. L. O. Year-Book* 1932, p. 63. Chile, Colombia, and Japan also used import quotas.

¹⁹ See "Tariffs and Trade Barriers in Relation to International Trade" by George B. Roorbach in *Proceeding of the Academy of Political Science; Steps Toward Recovery*, January, 1933, Vol. XV, No. 2, p. 85.

foreign purchases has caused a constant diminution of external trade which in the case of the exchanges between certain countries has amounted to an almost complete stoppage.²⁰

Although the well-nigh inevitable offspring of tariff increases is retaliation and a higher cost of living, the quota system has met the severest denunciation. Quotas breed a general feeling of insecurity and at times result in a practical prohibition of importations, thus wiping out not alone profits but also investments. Restrictions in general increased the burden of shipping, one-fifth of the world tonnage being idle at the close of 1931. Possibly the best criticism of the quota system was given at Paris on March 11, 1932, at a meeting of the International Chamber of Commerce by Mr. Silas H. Strawn, president of the United States Chamber of Commerce. He said:

(1) The adoption of quota systems is an additional and drastic restriction on trade, finance, and industry

(2) It is an arbitrary dislocation of the natural flow of commerce.

(3) It destroys existing machinery of production and transportation, established at great expense over long periods of time.

(4) It is an unwarranted invasion of government into the field of private enterprise.

(5) It is an irritating step in economic warfare which will tend greatly to destroy friendly international relations.

(6) It amounts in many cases to a violation of the spirit, if not indeed the letter, of commercial treaties.

(7) It will ultimately result in the ignoring, if not indeed of practical denunciation, of existing commercial treaties.

(8) It will inevitably lead to retaliation by the countries arbitrarily discriminated against, which may be extended to restrictions upon the movement of capital or the sale of services.²¹

SELECTED REFERENCES

Ashley, W. J. *Modern Tariff History* (London, John Murray, 1920)

Girault, Arthur. *The Colonial Tariff Policy of France* (Oxford, The Clarendon Press, 1916) Part I, Chapters I-VI.

Gruntzel, Josef. *Economic Protectionism* (Oxford, The Carnegie Endowment for International Peace, 1916) Part I, Chapters I III

²⁰ See the *Yale Review*, December, 1932, Vol XXII, No 2, p 219 and pp. 217-233.

²¹ See "The Plight of Foreign Trade" by W A Sollohub in the *American Economic Review*, September, 1932, Vol XXII, pp 403-413.

Yet the author of the article points out possible benefits from quotas or contingents: 'When a country is so bound by commercial agreements stipulating the most-favored-nation treatment that any decrease in its tariff would lead to an immediate invasion of its market, the limiting of imports by quotas and the allotment of import licenses to another power in exchange for a similar advantage in some other field, leads to an overcoming of the tariff walls by avoiding of maximum duties. Contingents thus permit a certain limited amount of business to be transacted, without endangering the existence of any domestic industry.'

Hirst, F. W. *From Adam Smith to Philip Snowden* (New York, Adelphi Company, 1925) Chapters II-VI.

List, Friedrich (S. S. Lloyd Translation). *The National System of Political Economy* (London, Longmans Green and Company, 1928) Book II, Chapters XXVI and XXVII.

McClure, Wallace. *World Prosperity* (New York, The Macmillan Company, 1933) Chapters XIII-XVII.

Richardson, J. H. *Economic Disarmament* (London, George Allen and Unwin, Ltd., 1931) Chapters III and IV.

Viallate, Achille. *Economic Imperialism and International Relations During the Last Fifty Years* (New York, The Macmillan Company, 1923) Chapter I.

CHAPTER XXVIII.

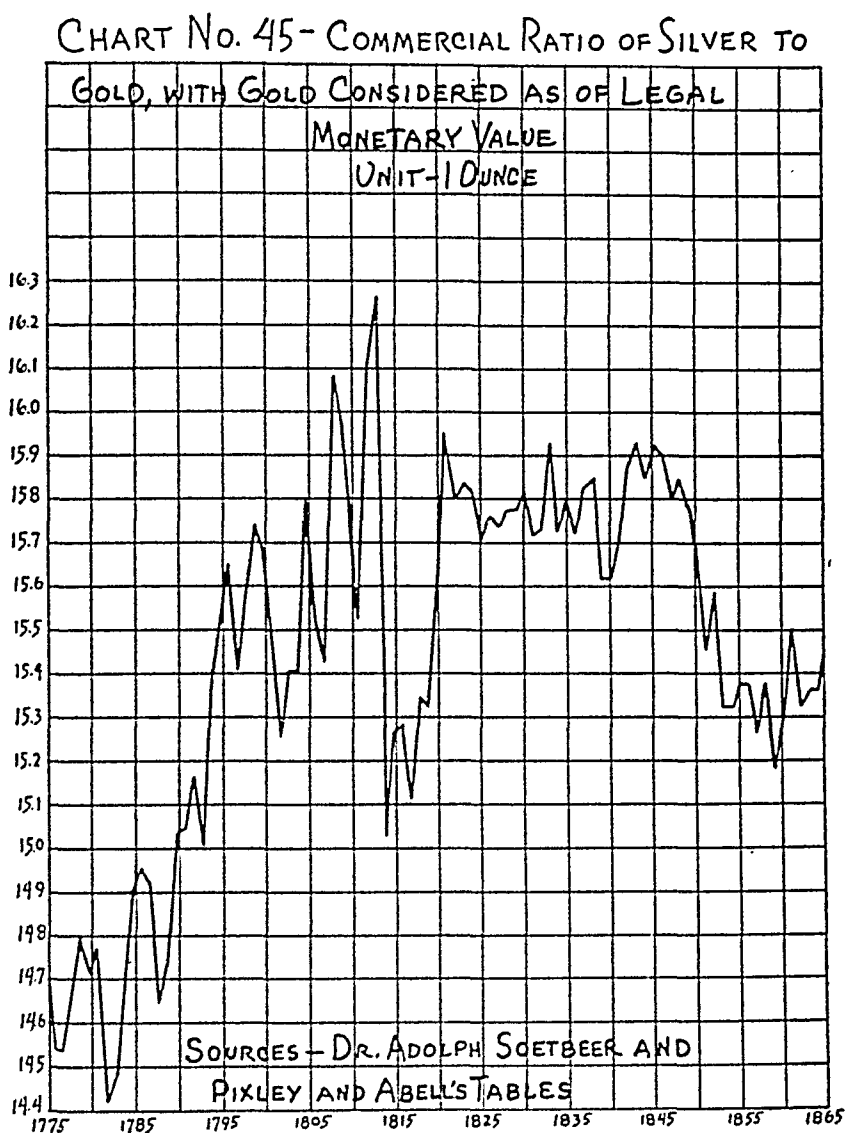
FINANCIAL AFFAIRS

Coinage.—Gengembres' mechanical adjuster and controller of the metallic content of coins, invented in 1808, reduced the opportunities of counterfeiting. Uhlhorn's lever press, invented in 1839, speeded up the minting of coins, reduced the cost of striking them, and gave coins uniformity in shape and content.

The most important problem connected with coinage is bi-metallism. England adopted a definite gold standard in 1816. Germany's silver coinage system continued with little change during the nineteenth century. Probably the most important factor in changing the situation was the Franco-Prussian War with its large indemnity. Of course, the way had been prepared gradually by the increased supply of gold flowing from the mines of California and Australia.

For the first three-quarters of the nineteenth century, however, silver was the main metallic money in most of the European countries. In 1865 Belgium, France, Italy, and Switzerland formed the Latin Monetary Union, the main object being the adoption of a common decimal system modeled on the French franc. The participating nations agreed to the free coinage of both gold and silver at the ratio of $15\frac{1}{2}$ to 1. In 1866 the Papal States, and next year Greece and Rumania, and in 1871 Spain joined the union. In 1873, nevertheless, France, fearing the loss of gold, dropped the free coinage of silver. Following that example the Union, in 1874, restricted the coinage of five-franc pieces and in 1878 dropped their coinage. The Scandinavian system, based on gold monometallism, came into use January 1, 1875. Holland introduced a silver coinage in 1847 and retained it until 1872, when re-

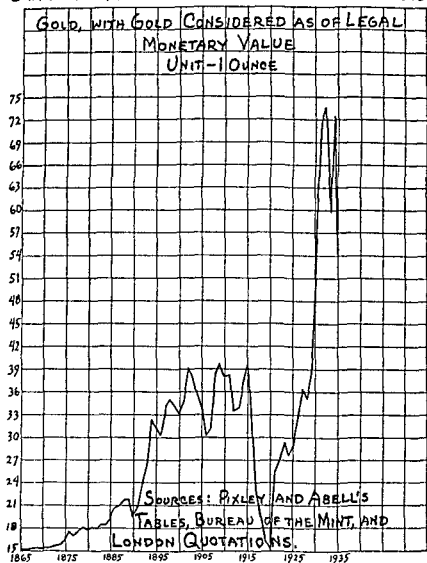
strictions began, but not until 1875 was the free coinage of gold decreed. In 1892 Austria-Hungary changed to the gold standard, the Maria Theresa silver dollar being limited largely



to the Levantine trade. Russia in 1897 adopted the gold standard and provided for the withdrawal of paper money. Russia forced her system on Finland by the close of the nineteenth century. By that time, in fact, bimetallism had lost

its importance in Europe, and was declining elsewhere. In 1893 India closed her mints to the free coinage of silver, four years later Japan accepted the gold standard, and in 1900 even

CHART No. 46 - COMMERCIAL RATIO OF SILVER TO



the United State definitely adopted that standard. Only China of the large nations clung to the measuring rod of silver at the outbreak of the World War.

The United States in particular, however, sought by international conference to postpone the burial ceremony of bimetallism. In 1878 the International Monetary Conference met at Paris. The United States insisted that the unrestricted coinage of silver and "its use as money of unlimited legal tender, should be retained where they exist, and, as far as practicable, restored where they have ceased to exist." The European delegates believed that the use of one or of both metals should "be left to the discretion of each state or group of states according to the particular circumstances in which they may find themselves placed." Renewed efforts at Paris in 1881 also failed.

President Harrison called an international conference on silver at Brussels in 1892. The chief hope of the American delegates was international bimetallism, and then, failing that, a sufficient increase in the use of silver to check its depreciation.¹ Again the delegates failed to reach an agreement.

At the London Conference in 1933 a powerful stimulant was injected into the supposedly dead frame of bimetallism, but presumably in an effort to raise the price of silver. Of a similar effect was the willingness of the United States to accept limited amounts of silver on the debts due her. England in her token payment of \$10,000,000 in June, 1933, used silver obtained from India, at thirty-six cents an ounce, a gain of about fourteen cents on the ounce, acceptance being at fifty cents under our Inflation Amendment of 1933.

These resolutions adopted, subject to time limitation of April 1, 1934, for ratification and January 1, 1938 for the maximum period covered, were:

That an agreement be sought between the chief silver-producing countries and those countries which are the largest holders or users of silver, with a view to mitigating fluctuations in the price of silver; and that the other nations not parties to such agreement should refrain from measures which could appreciably affect the silver market;

That governments parties to this Conference shall refrain from new legislative measures which would involve further debasement of their silver coinage below a fineness of 800/1000;

¹ See Chapman, J. M. and Westerfield, R. B. *Problems in Banking, Money, and Credit* (The Ronald Press Company, New York, 1927) pp. 23 and 27.

That they shall substitute silver coins for low value paper currency in so far as the budgetary and local conditions of each country will permit.²

Despite restrictions at times in the use of silver, small silver coins are employed as circulating media in all important countries. Gold is minted freely and in unlimited amounts, thus enjoying full legal tender quality whereas silver is minted in small amounts and serves primarily as subsidiary coinage. Nickel and copper, also like silver, are used for the small subsidiary coins. At times their amount is limited by law and at times merely by experience. Prior to the World War Germany limited such coinage to fifteen marks per capita and France to seven francs. Great Britain and the United States did not set limits.³

Paper Money.—Most countries at some time or other have experimented with paper money, for it is cheaper to issue than metallic money, it is flexible to the needs of trade, it is less likely to be exported than metallic money, and it seems necessary at times to buy supplies and to pay soldiers. Governments, however, are tempted to issue paper money rather than to tax, depreciation may reach extreme limits as in the John Law experiment of 1720, the French assignats of 1789-1796, in the United States during the colonial period and the revolution, in Peru in 1887, and in Russia, Germany, Austria, and other countries during the post-war period. In such instances of extreme depreciation individuals with fixed incomes, all of the creditor class, and possessors of cash virtually suffered complete confiscation and in cases of partial depreciation they suffered partial confiscation.

The regulation of paper money issues through granting the monopoly of note issue to government banks has aided perhaps in checking the use of inconvertible paper. Prior to the World War such regulation appeared markedly effective in France and Germany. England in 1821, France in 1878, the United States in 1879, and Japan in 1886 gave examples of countries able to reestablish the convertibility of paper notes on the basis first used. Yet even in the last quarter of

² *Supplementary Report on the Work of the League since the Thirteenth Session of the Assembly* (Geneva, 1933) p. 37.

³ See Holdsworth, J. T. *Money and Banking* (D Appleton and Company, New York, 1929) pp. 24-29

the nineteenth century Italy, Greece, and Russia, and other European nations struggled with irredeemable paper money, disturbing everywhere to business.

When the World War began in 1914 virtually every European country was on a gold standard with paper money issues well controlled. Yet that war plunged the world into the worst pandemic of paper money issues it had ever known. Virtually everywhere specie disappeared from circulation, hoarding became a chronic habit, and the purchasing power of the paper money declined. The British government issued \$1,-700,000,000 of so-called "currency notes," the Bank of France advanced the government nearly 40,000,000,000 francs, or seven times the circulating notes of 1914, and the Reichsbank notes of Germany grew from about 2,500,000,000 marks to more than 40,000,000,000. By September, 1922, approximately 53,000,000 marks were required to purchase one American dollar. By 1923 paper money in Germany amounted to four hundred sextillion marks, but was worth less than the paper on which it was printed. Depreciation in Russia in the post-war period was equally bad. All over Europe currencies had depreciated and the cost of living had mounted.⁴

This war-time inflation may be considered under three heads. Great Britain, Holland, the Scandinavian countries, and Switzerland had experienced slight depreciation in currencies in comparison with other countries and were able to restore the pre-war monetary standards. In Russia, Poland, Germany, and Austria depreciation was virtually infinite and in those countries new money units were established, the old currency units being redeemed at infinitesimally low ratios. An intermediate group of states represented by Belgium, France, and Italy had suffered such depreciation as to prevent resumption of the former gold currency basis; hence they stabilized their currencies at one-seventh to one-fourth of par. The second and third groups thus deliberately adopted depreciation and devalued their monetary unit at the expense

⁴ See OGG, P. A. and Sharp, W. R. *Economic Development of Modern Europe*, pp. 825 and 839.

of the creditors, a policy imitated by the United States in 1934.⁵

Banking.—Most of the European countries have a national or a central banking system somewhat similar to that of England, France, or Germany. The Bank of Russia prior to the World War was owned and managed by the government, which furnished all of the capital. In general, the central bank enjoyed a monopoly of note issue, had numerous branches, and acted as the fiscal agent of the government which controlled it.

The Bank of France under the influence of Napoleon Bonaparte, first consul at the time, was organized in 1800, as a bank of discount, deposit, and note issue somewhat like the First and Second Banks of the United States. Three years later the exclusive right to issue notes in Paris was granted to the bank. In 1848 the government granted it the exclusive right of note issue for all of France, but required it to buy out the other banks with note-issuing privileges, a task accomplished by increasing the original capital stock from 30,000,000 francs to 91,250,000 francs. The monopoly of note issue was intended to give stability to the paper currency. The bank, after 1806, was ruled by a governor and two deputy governors selected by the state from among the share-holders, but the state itself has never owned any of the bank stock. During the Franco-Prussian War and the World War the bank gave valuable aid in paying indemnities for the former and in floating loans. Of course, it had difficulties, suspending specie payments temporarily in 1848 and 1870. During such suspensions its notes became legal tender temporarily. By law the bank was required to have at least one branch in every French department. The French system differed from the American system in 1914 in at least four important ways. France has one bank of issue with numerous branches, the cash reserve is set by the bank, the notes are secured by the bank's assets, and the maximum amount of notes is set by law from time to time. In 1914 the United States had any number of banks of issue, but no branch banks, the cash re-

⁵ See Graham, F. D. in *The Encyclopaedia of the Social Sciences* (The Macmillan Company, New York, 1932) Vol. X, pp. 591-595 and Subercaseaux, Guillermo in *Ibid.* (The Macmillan Company, New York, 1933) Vol. XI, pp. 568-570

serve was set by law, the notes were secured by bonds, and the notes were limited to the bank's paid capital.⁶

The Imperial Bank or Reichsbank of Germany in 1875 evolved from the Bank of Prussia formerly owned by the government whose holdings had fallen to ten per cent of the capital by 1875 but whose control yet remained. The officers of the bank, appointed by the Kaiser, unlike those of France, were not allowed to own stock, and, though paid by the bank were regarded as government officers. An unpaid central committee of shareholders acted in an advisory and supervisory capacity. In 1875 thirty-six other banks enjoyed the right of note issue, but all except seven of them gave up the right or lost it by the expiration of their charters prior to 1894. That right by law was given to the Imperial Bank. Imperial Bank notes were made legal tender in 1909. The bank is supposed to keep a cash reserve equal to one-third of its circulation. Characteristics of the Imperial Bank different from the American practice prior to 1914 were the exclusive control by the government, the securing of the circulating notes by the bank's assets, the issuance of a certain amount of notes without conditions, increases in note issues if covered by an equal cash reserve or the payment of a five per cent tax on the excess, and the less extensive use of the bank check. The Imperial Bank guards the gold supply and, like the Bank of England, it raises or lowers the discount rate to protect and to regulate its specie reserve.⁷

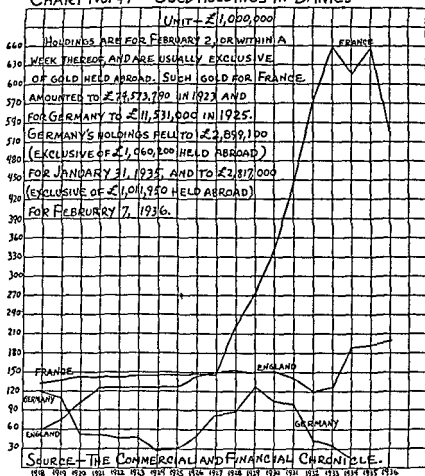
By the close of the eighteenth century the Bank of England had begun to assume the position of a bankers' bank. Its bank notes were the only ones with a national circulation and because they were used to settle balances in the London Clearing House most of the private banking houses of London kept money in the Bank of England. In 1826 the privilege of forming joint stock banks without the power of note issue was granted to banks with more than six partners outside the London area, or at least sixty-five miles from London. Seven

⁶ See White, Horace. *Money and Banking* (Ginn and Company, Boston, 1914) pp. 385-390.

⁷ See *Ibid.*, p. 390 and Holdsworth, J. T. *Money and Banking*, pp. 425-428. For a short account of some changes in the American system since 1914 see Jennings, W. W. *A History of the Economic Progress of the United States* (Thomas Y. Crowell Company, New York, 1926) pp. 702-706.

years later a similar right was granted to joint stock banks in London. The London and Westminster Bank was the most important of the banks almost immediately started. The 1833-Act made the notes of the Bank of England legal tender except for the Bank's own payments, thus confirming the Bank's standing as a central bank.

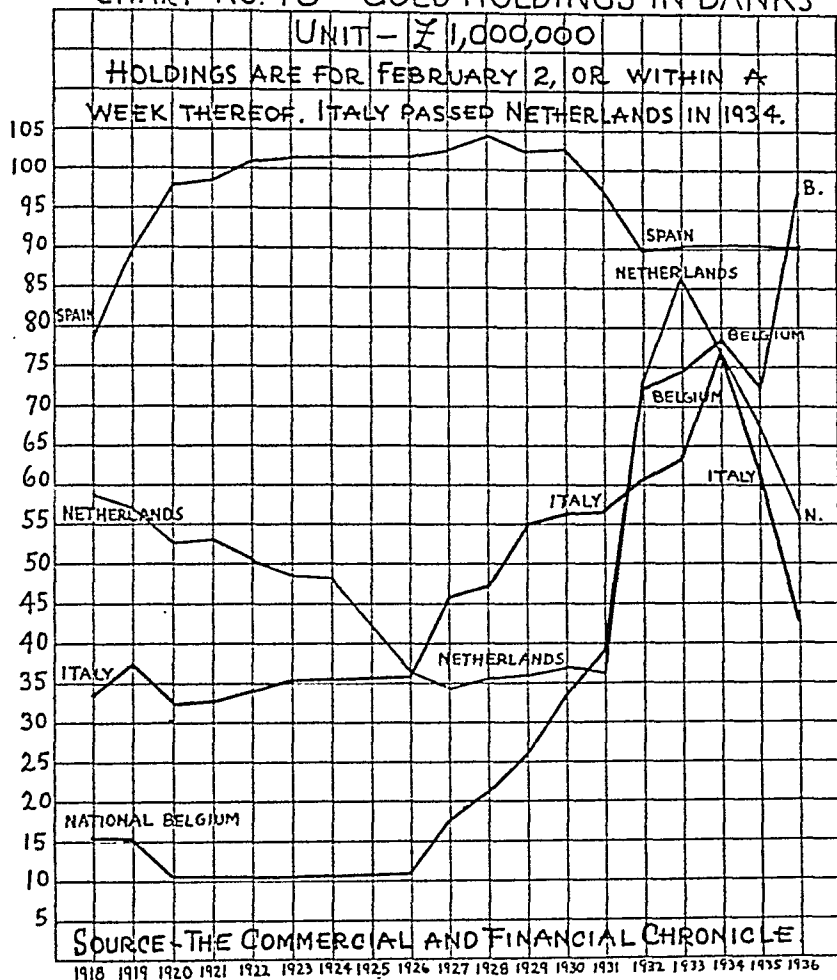
CHART No. 47- GOLD HOLDINGS IN BANKS



Sir Robert Peel's Bank Charter Act passed in 1842 confirmed the private banks in their existing rights of note issue, but denied such rights in the future and prohibited increased note issues. Private banks were gradually absorbed by joint

stock banks, note issues then lapsing. In 1853 the London Clearing House substituted the checks of the Bank of England for its notes in the settlement of the daily clearing balances. Bank notes were limited in amount to the capital of the Bank, but before the World War the Bank exceeded that limit only

CHART No.48 - GOLD HOLDINGS IN BANKS

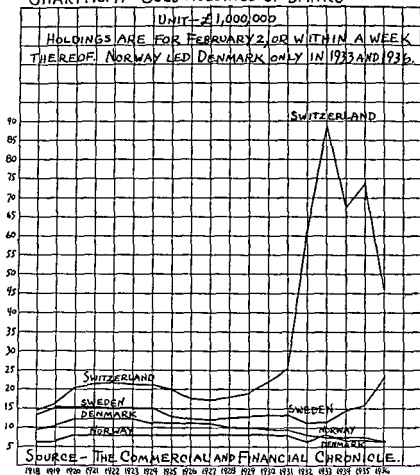


once, during the Crisis of 1857. The Act of 1928 set the fiduciary issue at £260,000,000, but the Treasury, if the Bank so requested, could increase or decrease that amount, increases being for not more than six months at a time or renewable

for more than two years. Any profits obtained from note issue were to go to the Treasury.

Because private banks were limited in capital to the resources of the partners they had difficulty in establishing branches. The Companies Act of 1862, moreover, stimulated

CHART No. 49—GOLD HOLDINGS OF BANKS



the absorption of private banks by joint stock banks. By the end of the nineteenth century the large joint stock banks were also absorbing the small joint stock banks. Now sixteen large banks do most of the business in England and five of them,—Barclay's, Lloyd's, London County Westminster's and

Parr's, London Joint City and Midland, and National Provincial and Union,—handle five-sixths of the business.

The Bank of Scotland founded in 1695 was the only important note-issuing bank in Scotland until 1727. The Royal Bank of Scotland, dating from that year, the British Linen Company, rechartered in 1806, and numerous small local banks enjoyed the right of note issue, notes below one pound being prohibited after 1765. About the same time credit began to be extended on the so-called cash-credit system, or the security of the borrower plus two bondsmen. This new type of credit added to the possibility of loans backed by land and additional property stimulated the development of manufactures and commerce. Early in the nineteenth century joint stock banks made their appearance, consolidations shortly occurring as in England. Legislation in 1845 furthered this result by restricting the issuance of notes to banks which then enjoyed the privilege and set the fiduciary issue of notes at the amount then outstanding.⁸

Continental Europe lagged behind eighteenth-century England in the development of banking, but in 1822 the Société Générale pour Favoriser l'Industrie Nationale established in Brussels marked a forward step. This bank, widely imitated on the Continent, lacked the sharp separation of functions found in England. It engaged not alone in commercial banking but also in investment banking. It made loans on current account, accepted drafts, discounted commercial paper, and participated in the long-term financing of industry. It obtained resources from the subscription of stock and from a bond issue. The Crédit Mobilier of Paris was founded a few decades later, but soon failed. The House of Rothschild, seeing its influence threatened by the Paris bank, participated in the founding of the Austrian Creditanstalt für Handel and Gewerbe in 1855.

Near the middle of the nineteenth century, several joint stock banks improving on the Crédit Mobilier model were founded in Germany, notably in Berlin, Cologne, and Darmstadt. These banks loaned idle capital with the idea of stimu-

⁸ See Hawtrey, R. G. in *The Encyclopaedia of the Social Sciences* (The Macmillan Company, New York, 1930) Vol. II, pp. 431-435.

lating and enlarging industrial activity. In time they began to push the deposit business by the establishment of branch banks. At the beginning of the last decade of the nineteenth century there were only a score or so of branch banks in Germany, but at the beginning of the World War in 1914, thirty-six of Germany's large commercial banks supported 1522 banking offices additional to their head offices. Germany's example of combining with deposit and loan business the financing of industry and the promotion of foreign trade has been widely imitated in Europe and has been copied in Japan.

In France the Revolution of 1848 proved disastrous to credit institutions. Fortunately the government helped to save the credit of the country by participating in the establishment of the Comptoir National d'Escompte. The early activities of the institution were limited to the keeping of demand deposits and the discounting of bills of exchange. Extensions in power, of course, came, the making of loans on goods in warehouses, the granting of loans on securities, the granting of acceptance credits backed by security collateral or cash, and the acceptance of drafts backed by bills of lading being allowed. In 1859 the government approved a real deposit and loan bank, the *Crédit Industriel et Commercial*. Speculative undertakings were prohibited to it in the interest of its depositors. Several other banks on the model of the *Crédit Industriel* were soon established. The *Crédit Lyonnais*, established in 1863, gradually extending its field of operations beyond Lyons, is now one of the most widely known commercial banks. The large banks established a systematic network of branches, thus stimulating the provincial and local branches to form the *Syndicat des Banques de Province* which promotes industrial and commercial establishments, markets securities, and underwrites stock issues.

The twentieth century has been marked by the development of a strongly centralized system in Germany centering at Berlin. Six banks⁹ control about nine-tenths of the German joint stock banks exclusive of the banks of issue and the mortgage banks. The heavy demands of industry, the neces-

⁹ They are: the *Berliner Handels Gesellschaft*, the *Darmstadter und Nationalbank*, the *Discontogesellschaft*, the *Dresdner Bank*, the *Deutsche Bank*, and the *Kommerz-und Privatbank* of Hamburg.

sity of shifting funds, the more careful investigation of risks, the easier weathering of losses, the more ready marketing of securities, and the higher prestige resulting from size have all aided the large banks at the expense of small banks. The large banks frequently organized investment corporations whose capital might be used for permanent investments, thus lessening somewhat the danger to the parent institution in a time of crisis. The big banks are also extremely active in promoting overseas trade, the Deutsche Bank having been a pioneer since the seventies. They are especially active in the Near and Far East and in South America. Despite the ravages of the World War German overseas banks were conducting operations in seventy-four foreign centers in 1928.

Three Paris banks¹⁰ occupy the position held by the six large German banks. They are, however, intermediate in nature between the general banks of Germany and the deposit banks of England. The large French banks are now engaging in joint enterprises. In 1921 the Société Générale and the Crédit Lyonnaise united in establishing the Banque Française des Pays Balcaniques in Belgrade and four years later the Crédit Lyonnais and the Comptoir National founded the Union pour le Crédit à l'Industrie Nationale.

Other countries have likewise developed their banking. The Société Générale de Belgique in 1929 had a capital stock of one billion francs and approximately 1500 local agencies and branches. It helps to finance home industry and trade and has important interests in the Belgian Congo. Its branch, the Banque Belge pour l'Étranger, has many foreign branches and interests in all the countries of Europe and even to some extent in the Orient. The Société Générale by participating in the establishment of the Banque Italo-Belge in Brazil extended its influence to South America.

The Netherlands had a great variety of banking institutions in the nineteenth century, but general banks came to the front in the next century. The Nederlandsche Handel-Maatschappij, formed in 1824 as a successor to the Dutch East India Company, is the best known general bank. The Neder-

¹⁰ They are: the Societe Generale, the Credit Lyonnais, and the Comptoir National d'Escompte.

landsch-Indische Handelsbank, dealing primarily with India, Amsterdamsche Bank, and the Twentsche Bank are likewise important banks, the last-mentioned institution being founded in 1861 to promote exports of textiles from Twentsche. It uses for the most part acceptance loans, a London branch soon being founded for that purpose. The members of the Credit-vereiniging, a majority of its borrowers, underwrite on their joint responsibility a specified percentage of the loans granted by the bank. The bank controls with small risk to itself numerous enterprises by borrowing securities from their holders and paying them one-half of one per cent as a loan fee as well as refunding to the owners the dividends when they fall due.

Swiss banking seems to be decentralized, but large cartels guard common interests. Such cartels have been formed by the eight big banks, by cantonal banks of regional significance, and by different savings and loan banks which supply local needs. Zurich is the banking center. Swiss banks, following the German model, engage widely in the flotation of securities. The Schweigerische Kreditanstalt, the largest bank, has paid eight per cent dividends for approximately forty years. Few branches are maintained in foreign countries, the one in London being the only important exception.

Most Italian banks of importance are of recent origin. The Banca Commerciale Italiana in Milan, founded with German assistance and after the German model, seeks to develop the electrical and rayon industries and naturally promotes foreign trade in such industries. The Credito-Italiana of Genoa, less important otherwise than the Banco Commerciale, has developed a larger deposit business. The Banco di Roma and the Banca Nazionale di Credito of Milan are other important banks. Fascism has placed the banks under government influence which has regulated their business and methods with foreign countries, thus favoring uniformity.¹¹

Recent Financial Disturbances.—Since 1929 in particular financial affairs including currency systems and debts have added to the chaos of warring tariffs and mutual jealousies and misunderstandings. In considering the disturbed economic conditions the fortunes of the gold standard before and

¹¹ See Weber, Adolf in *The Encyclopaedia of the Social Sciences*, Vol. II, pp. 435-441.

after the World War should be reviewed briefly. The gold standard mechanism has four distinct characteristics. One of these features is that the basic monetary medium of each gold-standard country is defined as a specific quantity of gold. A second characteristic is the unlimited coinage of gold. Still a third characteristic is the conversion of other methods of payment into gold. Lastly gold is exported and imported freely. When currency is defined in specified weights of gold, the basic rates of exchange can be determined by comparing the gold content of the various units and by calculating the cost of transporting gold.

Countries naturally varied somewhat in their application of the gold standard. Before the World War Great Britain had developed a system of paper currency, but save for a small amount secured by the Bank of England, her currency was really warehouse receipts for gold with one hundred per cent coverage. Germany had a gold standard, but she also had a large amount of currency without gold backing. Several important countries constituting the Latin Monetary Union had reached the gold standard by way of bimetallism. They still retained the five-franc silver coin on a parity with gold. Although this coin was strictly limited, banks could redeem their notes in either gold or silver. Such a power, though redemption was usually in gold, caused this system to be referred to as a limping gold standard in contrast to the system in Great Britain and Germany whose banks were compelled to give gold in exchange for their notes. Some countries, moreover, operated on the basis of keeping a part of their gold reserves in foreign nations in order to facilitate the process of international payments. Included in this group were Austria-Hungary, Russia, and the countries of the Scandinavian Monetary Union. The world also had some countries not on the gold standard, as for example, countries on the silver standard. Such countries in order to maintain commercial and financial relations with gold-standard nations worked out a "gold exchange" standard.

During the war all of the countries virtually in one way or another suspended gold payments for paper money. They placed strict restrictions on the international trade in gold

and repealed the pre-war limitations on the relations between gold and its substitutes. After the close of the war confusion seemed to become even more confounded and the Brussels Conference of 1920 and the Genoa Conference of 1922 wrestled with the problem. The Genoa Conference believed that the gold standard must be restored, that pre-war values or new definitions of values must be adopted, that the regulation of note issues and redemption of notes in gold must be enforced, and that international freedom of gold movements was essential. Because of rising prices and the larger amount of currency required, gold was made to do double work. No longer was it to be returned to circulation. It was to be kept in gold bars in which notes were redeemable. In this way one dollar in gold would do the work of several dollars. This gold exchange system used before the war by backward nations received the endorsement of the Genoa Conference. Under the gold standard the gold is kept in a country's own vaults and credit is allowed against that gold; under the gold exchange system the gold still serves as a basis of credit and currency, but the gold itself is held in another country. Under the gold exchange standard opportunities of expansion are almost unlimited, gold being used at least twice.

But not alone did measures of economy operate after the war. Extension of requirements likewise appeared. Silver practically disappeared as a basic reserve, the countries of the Latin Monetary Union dropping the limping standard for more up-to-date methods. Gold monetary systems requiring a larger stock of gold increased. Then, too, in many instances central banks were required to keep gold reserves against certain sight liabilities additional to notes. This procedure strengthened the tendency to concentrate the gold stock of each nation in its central bank.¹²

In 1931 a financial panic attacked Europe. The breakdown was not due to the weakness of the gold standard itself, but rather to the adoption of economic doctrines which made the operation of that standard impossible. The fall of the Credit Anstalt in Austria, the collapse of Germany because of the

¹² See "The Gold Standard Before and After the War" by Leo Pasvolksy in the *Annals of The American Academy of Political and Social Sciences*, January, 1933, Vol. 165, pp. 171-175.

CHART No. 50 - AVERAGE EXCHANGE RATE - ENGLISH POUND.

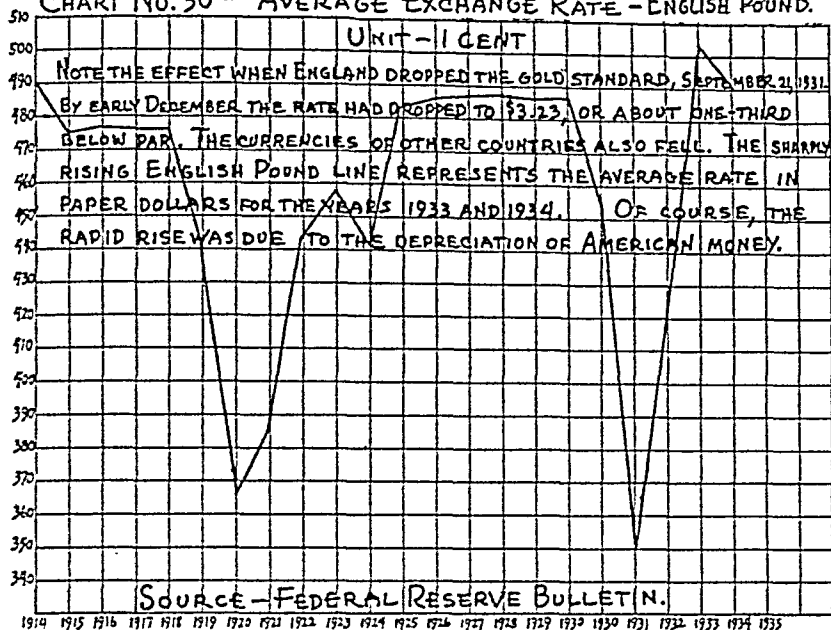
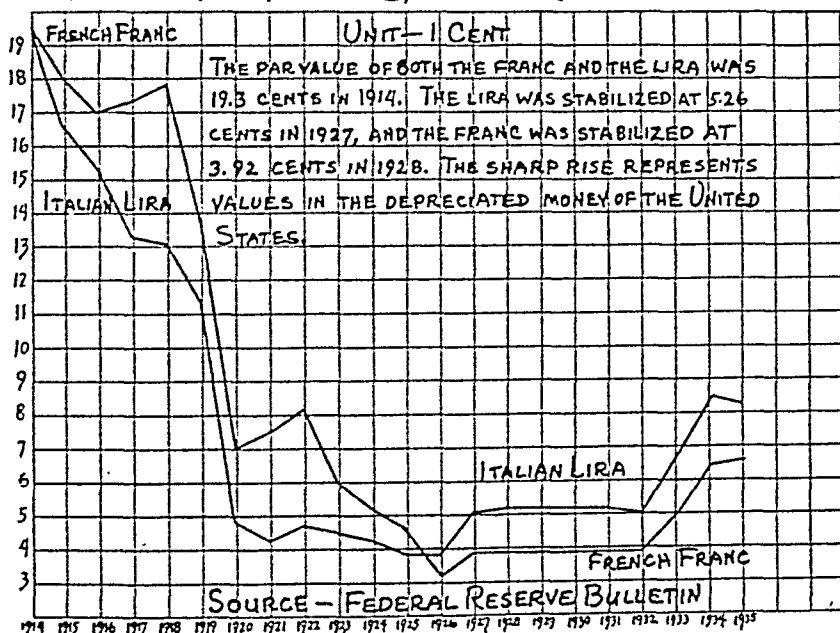


CHART No. 51 AVERAGE EXCHANGE RATE



heavy reparations payments and the utilization of short-term funds for long-time investment, and the suspension of specie payments in Great Britain were important signs of this panic.¹³

Great Britain as international banker had received large sums of foreign short-term credits and had placed part in long-term investments. Being unable to meet the demands of the short-term creditors England abandoned the gold standard. Norway, Sweden, Denmark, Finland, India, Egypt, Portugal, and the Straits Settlements because of their trade relations with Great Britain attempted to stabilize their currencies not to gold but to the pound sterling. Japan and Greece laid an embargo on gold exports. In numerous other countries exchange restrictions were put into force or gold exports were regulated. By May, 1932, the gold standard remained in full force in only six countries, namely, the United States, France, Netherlands, Belgium, Switzerland, and the Union of South Africa. By September 1, 1932, fourteen European countries had legally established control of exchange and three,—Italy, Norway, and Sweden,—had unofficial control. Control had been abandoned by Finland, Great Britain, and Lithuania.

Exchange control means the attempt, generally through a governmental agency, to maintain the value of domestic currency in terms of foreign moneys by interfering with the factors which determine the exchange rate. Exchange dealings may be left fairly free except when the rate rises so high that the government throws foreign exchange on the market, as England and France did during the war, to keep it from going higher. That was possible because of their heavy borrowing in the United States. Those countries, moreover, mobilized between 1914 and 1917 billions of dollars worth of American securities owned within their own territories and sold the securities abroad or pledged them for loans. The second type of control reduces the demand for foreign exchange. In some countries foreign exchange purchase is prohibited if the exchange is to be used to bring in certain

¹³ See "The Partial Abandonment of the Gold Standard, 1931-1932" by Marcus Nadler in the *Annals*, January, 1933, Vol. 165, pp. 202-208. Belgium fought a run on her gold supply late in 1934 and devalued her currency in 1935. France, Netherlands, and Switzerland struggle manfully to remain on the gold standard.

specified goods, usually luxuries. Again, special permit, often well-nigh unobtainable, is required before foreign exchange becomes available.¹⁴

Taxation.—Although Greece and Rome used fairly well developed systems of taxation, system disappeared during the Middle Ages. Revenue came to a considerable extent from land and the various feudal dues.

England shows a wide variety of taxes. The Dane-geld and the ship-geld were early types of taxes. Hearth taxes, poll taxes, and the like came into use. Duties on exports and imports were likewise levied. The land taxes, at first, were not definite or equable, but in time assessments came to be made on a definite basis, at first area, then gross product, and finally on net product. Such taxes are calculated as charges on rentals, for land values are figured in terms of rents rather than in selling prices. Wars during the opening part of the nineteenth century led England to introduce income taxes, but they were soon dropped, not being revived until 1842. Early laws allowed a fixed exemption and levied a proportionate rate on the remainder. The income tax and the property taxes now yield the largest part of England's income. Inheritance taxes, or "death duties," likewise yield part of England's revenues. Customs duties in England, as elsewhere, seem to be declining in importance.

France used feudal dues, largely taxes or rents on land. With the decline of feudalism, larger revenues appeared necessary, a notable extension of consumption taxes thus appearing. They were levied upon such things as drinks, jewelry, paper, and oil. Export and import duties also were levied. Work taxes, church tithes, the salt gabelle, and poll taxes all contributed to the support of the government. A large proportion of the taxes in France, approximately half, still comes from consumption taxes. Liquors of various kinds, salt, sugar, tobacco, and the like are subject to taxes. Fees, real estate taxes, taxes on doors and windows, and business taxes also contribute to French revenue. The World War led to the adoption of an income tax, but it is less efficient than the in-

¹⁴ See "Exchange Control" by Charles R. Whittlesey in the *American Economic Review*, December, 1932, Vol. XXII, No. 4, pp. 585-604 and the *Letter of The National City Bank of New York*, May, 1932, p. 79.

come tax in some other countries. In 1933, moreover, France raised money through lotteries, as other countries have done from time to time.

In Prussia a group of students made careful investigations of taxes, thus becoming responsible for a more systematic development in that country than most nations experienced. A tax placed upon the net rental of land was thus developed. The taxation of buildings thereafter was placed in a different category. Direct taxes upon various industries also were levied. Taxes on consumable goods were levied upon necessities, being collected in city and country districts. In the latter poll taxes appeared as substitutes. Out of the uniform poll tax the class tax evolved. It was based on wealth, occupation, or some other characteristic, each individual in a particular class being compelled to pay a specified amount. With some modifications the class taxes remained the most important part of the Prussian system until the introduction of the income tax near the middle of the nineteenth century. At the outbreak of the World War approximately three-fourths of the Prussian revenues came from the income tax. The tax is levied in proportion to ability to pay and enjoys high respect because of its scientific levying and because of the wide-spread respect for the laws of the state.¹⁵

Customs duties yield, when not too high, revenue for the government at the expense of the consumers of the taxed articles. The use of a tariff system combines fiscal, industrial, and political objects. On the whole, government receipts from customs duties are now much less important relatively than they once were. Export duties, long a part of the customs duties, have been virtually abandoned.

Another common tax is the excise levy. As early as the seventeenth century England employed this tax. Gradually she extended it to numerous articles including glass, leather, liquors, and salt. England has rather consistently retained her excise taxes on liquors, and, moreover, has charged license taxes on the sale of those commodities. She restricts the growth of tobacco and levies a tariff duty on its importation, thus obtaining the same results that would come from an

¹⁵ See Hunter, M. H. *Outlines of Public Finance* (Harper and Brothers, New York, 1920) pp. 72-80.

excise tax. France, even more than England, has consistently used the excise tax for a long period of time. Italy also has employed excise taxes extensively, but, unlike England and France, she has taken a high proportion of her revenue from the necessities of life. Germany offset some of the harm of the excise to particular articles by the use of bounties, and she taxed rather lightly favored articles capable of yielding high revenue, namely, beer. Virtually every country raises revenue by some form of excise. The World War and the Great Depression have increased the use of excises, the articles most commonly taxed being liquors, sugar, salt, and tobacco.

Governments have at times derived considerable revenues from monopolies. Queen Elizabeth, for example, to the indignation of her subjects, often granted monopolies to favorites for a cash consideration. Some European governments now maintain monopolies in order to nurture along their ebbing revenues. Match, salt, and tobacco monopolies have been employed most widely. Austria, France, and Italy use the tobacco monopoly. In France the tobacco monopoly was started more than two centuries ago and has had a continuous existence of more than a century. Only in certain districts and only by individuals holding government licenses can tobacco be grown. Careful supervision and inspection to secure the crop for the government are practiced. A board of experts sets prices, government plants manufacture the products, and government officials supervise the sales.¹⁶

At one time poll taxes contributed effectively to government revenues. The first English poll tax was levied in 1377; the first capitation tax in France was made in 1695. Some of these taxes were graduated carefully and were turned into class taxes. In Prussia, for example, the poll tax of 1811 was merged into the four-group class tax of 1820. The poll tax in the various Italian states scarcely survived the establishment of the kingdom. In 1887 Russia dropped the poll tax. Switzerland retained it through the close of the nineteenth century. Local government units in France and various agricultural countries still make a considerable use of the poll tax, but few

¹⁶ See *Ibid.*, pp. 230-232.

general governments derive any appreciable income from it.¹⁷

Land taxes are ancient and common, Belgium, England, France, Germany, Greece, Italy, Portugal, Spain, and other countries long having employed them. Often, too, live stock were included under this tax. The tax during the nineteenth century was very productive both for general and local purposes. The highest proportion of total revenues probably appeared in England and the lowest in Saxony. Apportionment was generally used, each district being compelled to raise its assignment, a policy rather inelastic and one reducing, as in England, the land tax to a sort of rent charge. Valuations are at times unfairly made and the tax, being on land, does not take account of encumbrances on the land, thus injuring farmers who have to carry heavy mortgage charges.¹⁸ Land increment taxes are gaining in favor, having been adopted in England in 1909 and in Germany in 1910. Early in 1935 Belgium, Denmark, Estonia, France, Germany, Great Britain, Hungary, Italy, Netherlands, Poland, and Rumania levied taxes on land and improvements on land.

One of the rapidly growing taxes of recent decades is the income tax, now found in some three score countries. Near the beginning of the nineteenth century William Pitt introduced the first real income taxes in England, but the government soon dropped them.¹⁹ They were revived by Sir Robert Peel in 1842. Five schedules were recognized at the outbreak of the World War, exemptions being allowed and the highest rates applying to the large incomes. Prior to the World War three-fourths of the Prussian revenue came from the income tax which had been evolved gradually from the poll and class taxes of 1811 and 1820. Prussian taxes were lower than English taxes, and did not reach as many classes. Austria, France, Hungary, Italy, Norway, Russia, Switzerland, and many other countries make use of the income taxes.²⁰ Changes due to war and depression prior to 1929 appear in the following table:

¹⁷ See Bastable, C. F. *Public Finance* (Macmillan and Company, Ltd., London, 1922) pp. 485-488.

¹⁸ See *Ibid.*, pp. 437-439.

¹⁹ They had been used slightly in the fourteenth century in the levying of poll taxes.

²⁰ See Hunter, M. H. *Public Finance*, pp. 319-324.

**Proportion of Total Revenue Derived from
Income and Property Taxes**

	1913	1925	1928
United States	10.6	64.3	67.7
India	6.7	21.2	20.2
Japan	30.4	34.3	32.0
Belgium	27.1	47.3	35.5
Denmark	29.0	42.0	35.1
France	28.1	44.1	32.0
Italy	39.7	39.2	36.2
Netherlands	32.7	47.2	43.8
Norway	17.8	40.9	31.2
Sweden	21.7	30.2	27.3
United Kingdom	47.7	58.8	55.0
Australia	9.7	27.2	26.3 ²¹

France and Prussia were pioneers in working out business taxes, the former as early as 1791. France recognized that some forms of business were more profitable than other forms, that profits varied more or less directly with the population even in the same class of business, that the size of the site occupied by a business might be a gauge of the profits, and that the home of the merchant might also be a criterion of his business success. Fixed and proportional rates were employed. Under the former, three schedules, A, B, and C, were used. Schedule A contained merchants and professional people, the merchants being classified further relative to their business,—wholesale, retail, or a combination,—and then being placed in one of nine classes dependent upon population. Bankers, department stores, transfer companies, and the like, in Class B, are classified according to the population of the business town and the number of workers. Schedule C includes industrial plants, a fixed rate being levied on each industry of kindred nature and a variable rate dependent upon the amount of profit. Still another tax proportioned to the value of the business site and home is levied. Naturally some classes, such as doctors and lawyers, pay only the last-mentioned tax. Prussia's system prior to 1891 was much the same as France's. In that year, however, Prussia made capital invested and annual earnings the criteria of taxation, the latter being determining and the former modifying. Four classes were recognized, the tax being graduated to take approximately

²¹ See League of Nations, *World Economic Survey*, 1931-1932, p. 252. The death duty is included in income and property tax and the last column for Australia is 1927-1928.

one per cent of the earnings.²² During the World War excess profits taxes were used extensively for war purposes.

One of the most rapidly growing taxes since the World War is the sales tax, a levy placed upon the sale of services or commodities. It is not, however, a new tax, for the Athenians, the Egyptians under the Ptolemies, the Romans, and the early Spanish and French used it. The alcabala, a local tax for centuries in Spain, became a national tax in 1342 and was not abolished until 1845. France used various sales taxes, notably on provisions in 1314. Naples in the fifteenth century and later employed the sales tax. And at varying times other countries made use of it, at least on certain articles as luxuries.

The big period for the adoption of a general sales tax was 1919 to 1925 inclusive. Italy late in 1919 enacted a law imposing a tax of 2.5 per cent on the sale of commodities for use in business except at retail, and just a month later, December 24, Germany enacted a law imposing a tax of two per cent on the gross income of business and professions. In 1920 France levied a tax of two per cent on ordinary articles, three to sixteen per cent on luxuries and varying rates on special articles, the measure of the tax being the total completed sales. Belgium, Hungary, Rumania, and Russia enacted sales taxes in 1921, and Danzig and Luxemburg followed their example in 1922. Austria's law, dating from 1923, imposed a tax generally ranging from two to eight per cent on total sales. Poland's law, dating from 1925, imposed an industrial tax rising to as high as five per cent and a varying license tax on gross sales and the privilege of carrying on business. In 1933, Netherlands imposed a tax of four per cent on ordinary articles and of ten per cent on luxuries. Rates, to summarize the various laws, were usually two or three per cent on necessities, but sometimes rose to twenty-five per cent on luxuries, as in Hungary. By 1935 more than a score of countries, about half European, had adopted sales taxes.²³

Inheritance taxes also were used in the ancient period, probably as early as 2000 B. C. Egypt, Rome, and Feudal Europe

²² See Hunter, M. H. *Public Finance*, pp. 365, 366

²³ See New York Tax Commission. *Tax Systems of the World*, Sixth Edition (Tax Research Foundation, Chicago, 1935) p. 341 and Buehler, A. G. in *The Encyclopedia of the Social Sciences* (The Macmillan Company, New York, 1934) Vol. XIII, pp. 516-519.

employed inheritance taxes or relatives thereof. England's death duties really began in 1694 with the imposition of five shillings, doubled four years later, on probates above twenty pounds. The uniform charge lasted until 1779, three scales of duty then being established. The ad valorem principle was adopted in 1889. The legacy duty, started in 1780, had a somewhat similar course of development. A parallel tax levied on realty and settled personalty, called the succession duty, began in 1853. Complexity in duties seemed to increase, but gradually in England, as elsewhere, two principles evolved, namely, that strangers or distant relatives should pay a higher rate than near relatives and that large successions or inheritances should pay a higher rate than small ones. Switzerland was long the only Continental country measuring up to these principles. France made a beginning in 1790 and increased her duties in 1798, 1816, 1832, and 1850, gradually eliminating inequities and defects. Italy and various German states early introduced inheritance taxes. England, France, and Switzerland now employ high progressive rates, but many other countries, usually democratic, including Austria, Belgium, Greece, Holland, Italy, Russia, Spain, and Sweden, use them.²⁴ In 1935 fifteen European countries made use of estate and inheritance taxes.

Numerous other taxes in the past have contributed to government support. Included in this group are charges on transportation and communication, that is, goods transferred from place to place or advertisement, newspaper, telegraph, and telephone taxes and the like. Often such taxes are collected by means of stamp duties. England, France, Italy, and Prussia have used such taxes.

Having referred to the chief sources of governmental revenues, we shall now notice briefly expenditures. The greediest of all claimants for state income is war,—past, present, and future. Justice and security, administrative supervision and poor relief, education and religion, industry and commerce, and civil employees at home and abroad are among the other claimants of the state income. In recent decades social in-

²⁴ See Hunter, M. H. *Public Finance*, p. 402 and Bastable, C. F. *Public Finance*, pp. 597-605.

insurance and social betterment work have claimed increasing shares of the national income.

The following table illustrates the main items in central government expenditures of four participants in the World War:

Country	Year	Defense	Public Interest	Debt Amortization	Total	Education	Social Welfare	War Burden
Belgium	1913	27	30	2	32	9	7	—
	1925	14	21	3	29	6	7	30
	1928	10	14	17	31	7	7	29
France	1914	42	—	—	19	9	5	—
	1925	13	31	1	34	6	2	31
	1928	16	25	11	36	6	2	26
Great Britain	1912-1913	52	16	4	19	5	11	—
	1925-1926	19	41	7	48	1	8	18
	1928-1929	17	40	10	51	1	9	14
Italy	1913-1914	33	23	1	24	5	1	—
	1925-1926	19	24	5	30	4	3	16
	1928-1929	23	26	1	28	4	3	11.25

Germany's expenditures may be classified for the same period of time under different heads:

	1913-1914	1925-1926	1928-1929
1. General and Financial			
Administration	9.2	9.6	8.1
2. (a) Police and Justice	7.8	8.8	7.6
(b) Army and Navy	25.2	4.4	4.0
3. School, Science, Art, Church	19.4	16.4	15.4
4. Social Welfare	9.6	17.0	17.2
5. Housing	0.4	7.4	7.4
6. Economic Development and Communications	14.2	10.0	10.7
7. Public Utilities	6.0	3.3	3.5
8. Debt Service	6.6	1.3	4.3
9. Miscellaneous	0.5	0.2	0.1
10. War Burden (Internal)	0.8	14.0	11.1
War Burden (External)	0.0	7.5	10.5
Percentage of National Income	15.7	22.3	27.6 ²⁶

²⁵ See League of Nations *World Economic Survey, 1931-1932*, p. 250. The total under public debt includes items other than amortization and interest.

²⁶ See League of Nations *World Economic Survey, 1931-1932*, p. 249. The debt service is at times placed under different heads.

War Finance.—During war governments often borrow, issue paper money, raise customs duties, excises, and property taxes, and levy new taxes. We shall note here only two wars, the Napoleonic and the first World War.

For the former struggle, equality of sacrifice was unknown. Professor J. Shield Nicholson in speaking of England said: "There was not a person, or commodity, or occasion that escaped taxation. On everything whatever, living or dead, on every occasion from birth to burial, taxes were imposed of all degrees of inequality."²⁷ The worker's bread, beer, coffee, soap, salt, and sugar were taxed. Of little comfort to him was the fact that he paid no income tax, for nearly half of his meager earnings went to the national authorities to help pay war expenditures.²⁸ The French Revolution reduced indirect taxes to a minimum leaving only customs and postal revenues, registration and stamp duties, and such miscellaneous taxes as those on public conveyances, gold and silver articles, playing cards, and tobacco. The budget of 1801-1802, better balanced than most budgets, derived its receipts from the following sources: direct taxation—46 per cent; forests and national domains—22; indirect taxation—27; and miscellaneous and extraordinary—5. Only slowly did Napoleon resort to indirect taxation for national purposes, but in 1804 he imposed taxes on liquors for state purposes. With the increased intensity of the struggle taxes mounted and as Napoleon lost territory the burden on his people became well-nigh unbearable.²⁹

The participants in the World War relied little on taxation, Germany in particular hoping to finance her share by such indemnities as the one exacted from France after the Franco-Prussian War. In 1916, however, she increased postal, telephone, and telegraph rates and inaugurated a sales tax. An extraordinary tax on incomes and property with rates graduated up to fifty per cent came in 1918. Taxes were applied also to wines, mineral waters, and beer and increased on such articles as coffee and tea. A luxury turnover tax was increased to ten per cent. The yield from taxes by 1918 was more than double

²⁷ See his *War Finance* (P. S. King and Son, Ltd., London, 1918) p. 351.

²⁸ See Robinson, Cyril E. *England* (Thomas Y. Crowell Company, New York, 1928) p. 521.

²⁹ See Pariset, George in *The Cambridge Modern History. Napoleon* (Cambridge, The University Press, 1906) Vol. IX, pp. 26, 27.

that of 1914, but was woefully inadequate for the war needs. It was, however, a larger increase than in France during the same period, for that country raised only four per cent of her war expenditures from taxation. Italy and Russia likewise raised small amounts of their war needs by taxation. England raised about one-sixth of her war expenditures by taxes, nearly nine billion dollars from 1914 to 1919 inclusive. More than half came from income taxes and excess profits taxes, the rate on the highest incomes rising to 52.5 per cent in 1918 and to eighty per cent on excess profits. A maximum of as high as one-fifth was taken from estates. Tariff duties were raised and new duties were levied. Before the struggle was over the state was taking about one-third of the income of the average man and about one-half of the income of the rich man. Yet even that heroic effort was unable to meet the need.

England, like all other countries, borrowed heavily, while at the same time she lent money to her allies. Home-borrowing provided more than four-fifths of the sinews of war, perhaps three-fourths for the Allies and virtually all for the Central Powers. Even that gigantic effort failed to obtain all the money needed; hence the belligerents turned elsewhere. Germany, the banker for the Central Powers, advanced more than \$1,250,000,000 to her allies in the first three years of the war and established credits in the early stages of the struggle in the United States, Switzerland, Holland, and the Scandinavian countries, but the total foreign credit obtained was small. England and France, with thirty billion dollars in investments, had a big advantage over Germany and prior to the entrance of the United States into the war borrowed about three billion dollars. From August, 1914, to April, 1917, about eight and one-eighth billion dollars of indebtedness accumulated upon England, Russia, France, Canada, and Italy. England gave nearly half of that sum in net advances to her allies. Up to November, 1920, the United States advanced about \$9,500,000,000 to the Allies, chiefly to England, France, and Italy for expenses growing out of the World War.

SELECTED REFERENCES

Clapham, J. H. *The Economic Development of France and Germany* (Cambridge, The University Press, 1921) Chapters VI and XII.

Dulles, Eleanor L. *The Dollar, the Franc, and Inflation* (New York, The Macmillan Company, 1934).

Dulles, Eleanor. *The French Franc, 1914-1928* (New York, The Macmillan Company, 1929) Chapters VI-IX.

Haig, R. M. *The Public Finances of Post-War France* (New York, Columbia University Press, 1929) Chapters XVII-XX.

Kemmerer, E. W. *Kemmerer on Money* (Chicago, The John C. Winston Company, 1934) Chapters VI and VIII.

Ogg, F. A. and Sharp, W. R. *Economic Development of Modern Europe* (New York, The Macmillan Company, 1926) Chapter XXXI.

Pigou, A. C. *A Study in Public Finance* (London, Macmillan Company, Ltd., 1928) Part II, Chapters I-VII.

Stamp, Sir Josiah. *Taxation During the War* (Oxford, The Carnegie Endowment for International Peace, 1932) Chapters VI-VIII.

CHAPTER XXIX.

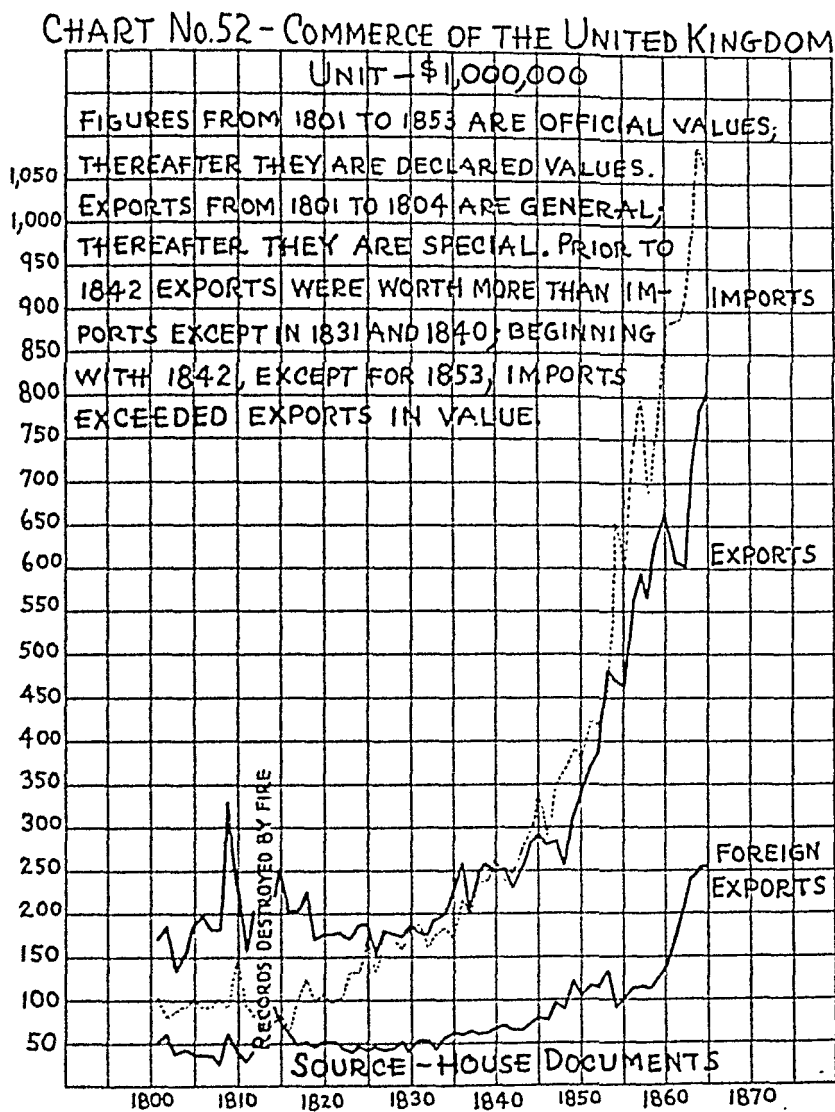
COMMERCE, FOREIGN AND DOMESTIC

England.—A prominent English author declared that the eighteenth-century English trade was of such slight importance that, with the exception of wheat, all of it "might have been destroyed without making any appreciable change in the habits of wealth of the people." Despite fluctuations, as during gold discoveries, wars, and panics, commerce increased rather steadily. By the close of the nineteenth century it amounted to more than three billion dollars, or nearly one-fourth of the world's total, and by the outbreak of the World War values had virtually doubled, but the proportion had fallen to about one-sixth of the world's total.

Several reasons may be mentioned for England's big increase in commerce. One of the most important reasons is her excellent location. England's numerous colonies form a second reason for her rapid growth, their development meaning heavier purchases and sales for the mother country. A third reason for England's leadership is her long maritime ascendancy. She has the navy to protect her trade in time of war and she has good ships, docks, and sailors. England's early industrial development, in the fourth place, aided her greatly in securing a large share in international trade. In the early part of the period, as a fifth reason, we might note that English goods appealed especially to the needs of the people in the outlying parts of the world. In the sixth place, England long has been the banking center of the world and her merchants have usually been liberal in the granting of credits. Improved transportation facilities and a liberation of trade policy were two other causes of growth.

Yet even before the World War and the Great Depression

England was facing marked competition, especially from Germany and the United States. In the last two decades of the nineteenth century foreign nations increased their imports



by eleven per cent, but England increased her exports to them only four per cent. British colonies increased their purchases by seventeen per cent, but their purchases from England de-

clined one per cent. In the decade, 1881-1890, more than two-fifths of all Japan's imports came from the United Kingdom, but in the decade 1900-1909, little more than one-fifth came from England. Between 1880 and 1909 England showed an increased share of trade with only three of the world's minor markets,—Spain, Argentina, and Sweden. Her relative decline probably was due to weakness in the production of export articles, weakness in marketing the articles, and the harmful influence of tariff legislation in other countries.¹

The commerce of the United Kingdom was rather unequally distributed, nine-tenths in England and Wales and the largest part of the remainder to the Scottish lowlands. London, particularly because of its heavy import trade, led not alone England but the world in foreign trade. Liverpool, the second port, chiefly because of its trade with the United States, surpassed London in exports. Hull, Manchester, Glasgow, Southampton, and Cardiff are other important ports. Measured in tonnage rather than in value London ranked little above Liverpool, was lower than New York and Hamburg, and about on a par with Rotterdam and Antwerp.

In 1800 about one-fourth of all English export values were represented by woolen goods, but in 1850 less than a seventh were so represented. Cotton manufactures had supplanted woolens in first place. Among the other rapidly growing exports were iron and steel, hardware and coal. By the outbreak of the World War four-fifths of all export values were represented by manufactured goods, coal, constituting about a tenth of all export values, being the only raw material still going out in large quantities. Cotton manufactures alone comprised about a fourth of England's exports, more than seven billion yards of cotton cloth being sent out of the country in 1913. Iron and steel exports reached second place. Machinery increased fivefold in value from 1850 to 1900 and doubled again by 1914. Woolens and linens, leather, chemicals, jute, and pottery were still other exports.

Imports like sugar, tea, coffee, and tobacco declined in relative importance during the nineteenth century, but foodstuffs increased markedly, especially after the repeal of the corn

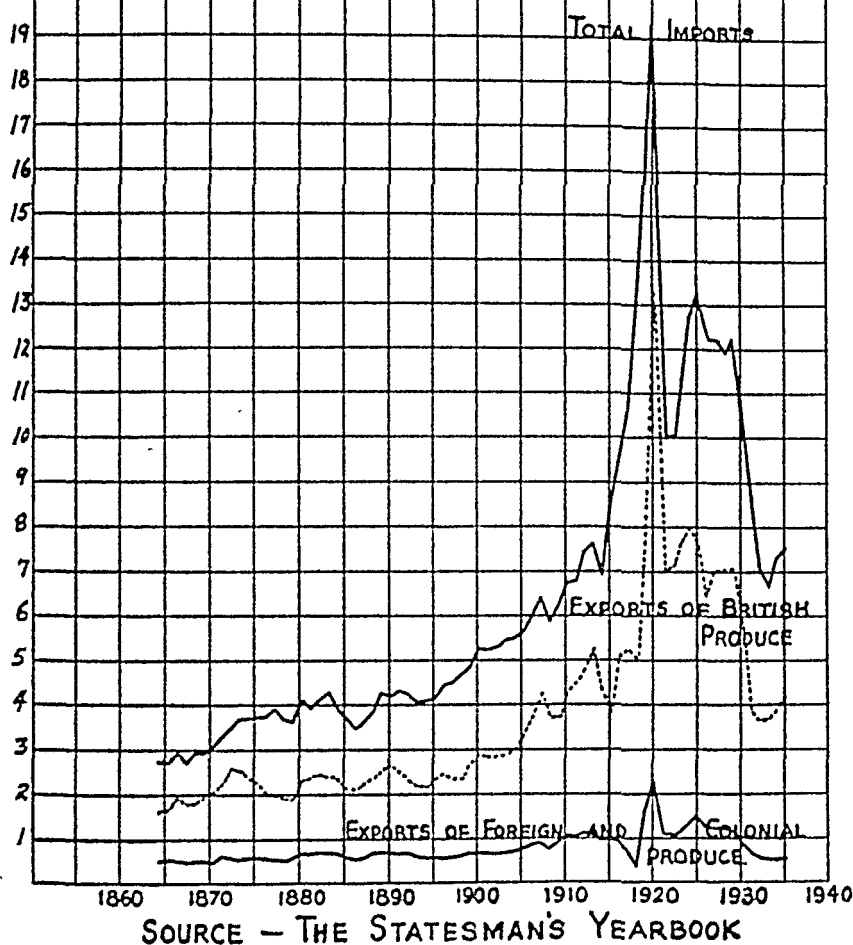
¹ See Day, Olive. *A History of Commerce*, pp 386-396.

laws in 1846. Raw materials naturally increased, the English cotton manufactures requiring an immense supply of cotton. Home wool was no longer sufficient for woollen manufactures

CHART No. 53-ENGLISH COMMERCE

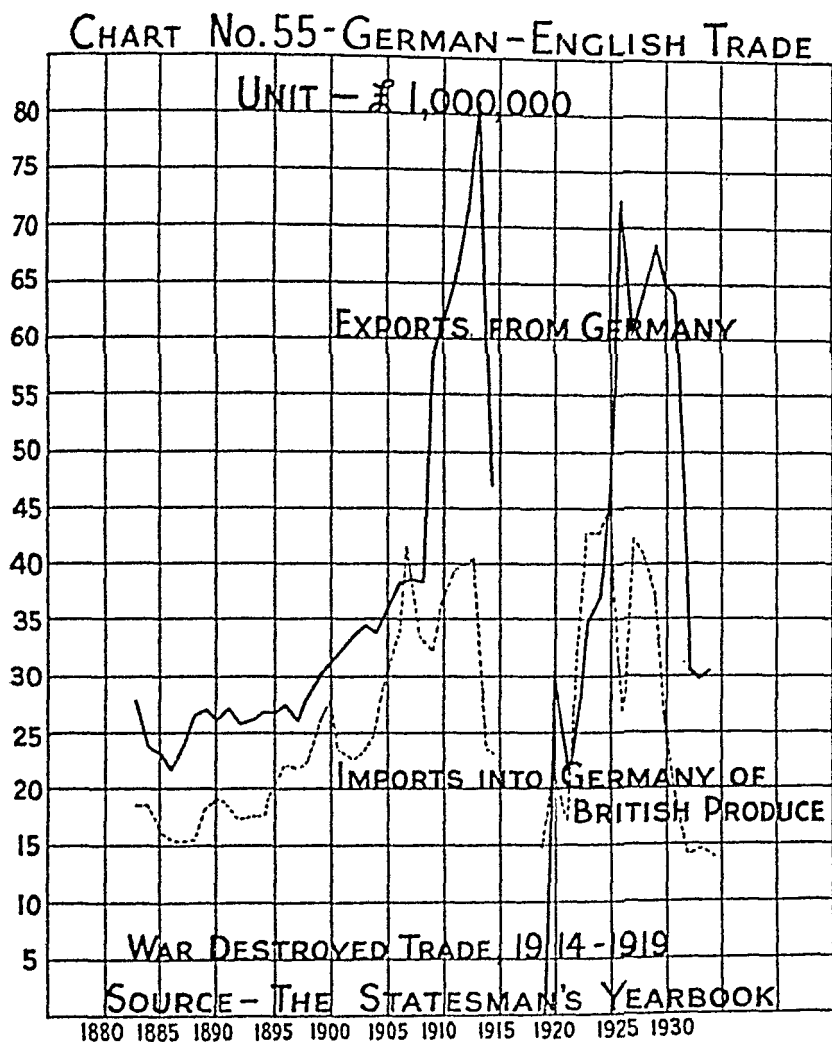
UNIT - L 100,000,000

NOTE THE INFLATED VALUES FROM 1914 TO 1921



as it had been at the close of the eighteenth century. Silk had passed flax and hemp in importance as an import. With the low freight rates iron ore and other minerals also are pur-

bought more than one-fourth of England's exports. In 1900 about two-fifths of all England's trade was with her European neighbors, nearly a fourth was with her colonies, and most of the remainder was with the United States. In 1911 the lead-



ing purchasers of British exports were India, Australasia, Germany, the United States, France, and Holland, the first taking three times as much as the last. In the same year England purchased most heavily from the United States, Australasia,

France, British India, Germany, and Russia, three times as much coming from the first as from the last.

In 1914 England had more than two-fifths of the world's forty-nine million gross tons of shipping. Rising freight rates led to the requisitioning of all refrigerated space by the close of 1915, and in 1916 the government began to restrict imports. The next year the controller of shipping took control of all merchant shipping, taking for the government all profits in excess of "blue book" rates, or those fixed by the government. The exigencies of war finally led, after various experiments, to the formation in November, 1917, of the Allied Maritime Transport Council, which afforded signal service in the handling of imports and exports of various kinds and especially in the transportation of American troops.

England was more ready to take over the railroads than to take over the shipping and the day after war began a committee was constituted to run the roads as a unit. The owners were to be given, if necessary, the difference in proceeds under government operation and net receipts in 1913. Not until 1921 were the roads returned to their owners. The World War itself and the legacy of high tariffs which it left were hard on English commerce. Imports measured by 1913-values were twelve per cent less in 1920 than in 1913 and domestic exports were thirty-six per cent less. Except for the growing importance of her colonies as sources of foodstuffs and raw materials and continued dwarfed values in comparison with 1913, changes have not been especially significant. Now about half of her imports come from her own colonies and nearly half of her exports go to those colonies, British India and Irish Free State being her best customers.

Germany.—Statistics for German commerce in the early part of the nineteenth century are unavailable. Some manufactures were exported, but the chief exports were foodstuffs and raw materials. Germany's imports were primarily manufactured goods and machinery. Combined imports and exports in 1885 were less than in 1872, exports having shown a slight increase. But from 1885 to 1913 imports increased nearly fourfold and exports almost as much. The two com-

bined in 1913 were worth about five and one-fifth billion dollars, imports exceeding exports slightly.

Among the causes for this rapid expansion were developing transportation facilities, the growth in population, rising standards of living, increase in wealth, large-scale production, the indemnity of a billion dollars and Alsace-Lorraine obtained from France, but above all the character and training of the people and commercial organization. The people are steady and thrifty, the educational system is excellent, and the technical schools are without superiors. Germans took pains to find out what their customers wanted and to supply those wants. They trained their salesmen in the customs, the language, and the traditions of the regions where they were to sell. They published catalogues and trade papers in foreign languages. They made use of cartels and syndicates. Their banks took at good profits risks which American and English bankers rejected. The German steamship companies were among the best in the world. Germany's share of trade, 1881 to 1909, declined in only one of the ten great world markets, Holland. In most cases its share increased in a marked way.

By 1914 German exports consisted almost entirely of manufactures, coal being the only important raw material and beet sugar the only important foodstuff. Imports consisted largely of raw materials and foodstuffs such as silk, wool, cotton, coffee, flour, rye, barley, and wheat. Great Britain and Austria-Hungary took more than a third of Germany's exports in 1894 and about a fourth in 1907. Great Britain, Austria-Hungary, Russia, and the United States supplied more than half of her imports in 1894 and nearly as much in 1907 when the order was: the United States, Russia, Great Britain, and Austria-Hungary.

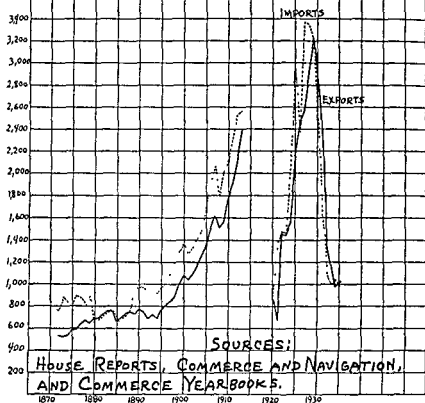
The World War, of course, caused a tremendous decrease in German export trade and deprived many industries of essential raw materials, including cotton, wool, jute, rubber, silk, and certain metals. Germany's purchases from the Scandinavian countries are much larger than they were in former years, but aside from that and the increase of her coal imports the direction of trade was changed little, that is, permanently. In 1913 Germany's share of world trade was

fourteen per cent, in 1922 a little more than a third of that percentage, but by 1927 it was nearly eleven per cent. Usually the United States, Argentina, the United Kingdom, and the

CHART No. 56 - SPECIAL TRADE OF GERMANY

UNIT - \$1,000,000

THE VALUES FOR 1920, 1921, AND 1922 ARE BASED ON THE 1913 PRICES. EXPORTS EXCEEDED IMPORTS, 1880-1883, 1886, 1887, 1926, 1929. EXPORTS FOR 1921 ARE FROM MAY TO DECEMBER.



Netherlands supply the largest share of imports and England, the Netherlands, the United States, and Czechoslovakia buy the largest share of exports. Commerce all told in a recent

normal year was valued at a little more than six billion dollars, imports exceeding exports by over two-fifths of a billion. The chief exports are usually chemicals, iron and steel, machinery, coal and its products, cotton manufactures, and electrical apparatus. The leading imports are normally wheat, oilseeds, cotton, hides and skins, wool, fruits, nuts, cotton manufactures, butter, and ores and slags. Hamburg near the mouth of the Elbe is the great port, but Bremen, Cologne, and Lubeck are also noteworthy.

During the war the railroad system rendered invaluable service, but the armistice compelled Germany to surrender five thousand motor trucks, the same number of locomotives, and 150,000 freight cars. Nationalization of the roads led to a big deficit, perhaps because of overstaffing and the eight-hour day. In 1924 the state-owned system was turned into a joint stock company, but ownership was left in the state.

By the peace treaties of 1919 both Germany and Austria were compelled to cede all craft over 1600 tons and fifty per cent of those from 1600 down to one thousand and to agree to construct one-fifth of a million tons for replacements.² The Treaty of Versailles provided for the joint administration of the Elbe, the Oder, the Danube, and the Rhine and compelled Germany to cede one-fifth of her interior navigation tonnage and the proportion of her craft on the Elbe, Oder, Niemen, and Danube that might be determined by an American arbitrator. She also lost control of the Kiel Canal which had been completed in 1895 and deepened just before the war. Germany, because of a rapidly declining currency, required for a while the use of permits for the exportation of foodstuffs, raw materials, and other necessary commodities. A high protective tariff now restricts her imports.

France.—Napoleon proved unable to exclude English goods from the continent of Europe and his insistence on that policy led to the break with Russia and hastened his own downfall. Industrial development was slow and the tariff policy hindered trade. The decrees of Napoleon III lowering or suspending duties on agricultural products and such materials as coal, wool, and iron greatly stimulated trade. The various low

² Although that meant the delivery of about four million tons, by 1929 Germany had more than four million tons in her merchant marine.

tariff treaties, and the rescinding in 1866, except in the coast-wise trade, of special favors to French shippers added to this effect.

Both imports and exports, despite the return to high tariffs, nearly trebled from 1870 to 1913, the former rising from about three-fifths of a billion dollars to one and three-fifths billion and the latter from a half billion dollars to one and a third billion. Although the government had built up a colonial empire sixteen times as large as France by 1914, total colonial commerce was only one-fourth that of France.

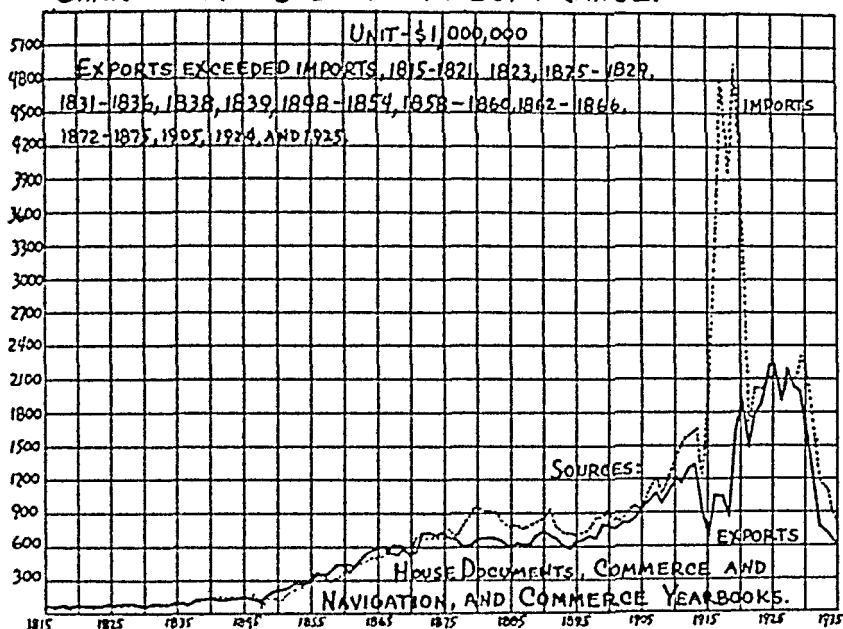
In 1878 an Englishman commenting on the trade between his country and France stated: "Broadly it may be said France supplies us with our luxuries, and we minister to the necessities." That statement still has a substantial element of truth. The chief French exports are usually silk fabrics, cotton fabrics, iron and steel, pearls, wool and waste, clothing and lingerie, and precious stones; the main imports are wool, cotton, coal, wines, precious stones, and pearls. France thus takes raw materials and transforms them by skilled labor into expensive manufactures. Exports go in large part to Belgium, the United Kingdom, Switzerland, Germany, and the United States. The main imports come from Germany, the United States, the United Kingdom, Belgium, and Argentina. In 1927 the exports were worth slightly more than were the imports, a reversal of ordinary conditions. The combined values prior to the Great Depression were a little more than four billion dollars per annum.

Of France's forty or more ports Cherbourg is noted for passenger traffic. Havre is famous for its receipts of American cotton and Brazilian coffee, Bordeaux is noted for its receipts of South American products and its wine shipments, and Marseilles is noted for its receipts and shipments from and to the Far East, Algeria, and the Mediterranean countries. Marseilles ranks with the leading cities of the world in the receipt, manufacture, and sale of vegetable oils and their products. Included in the list are olive oil, palm oil, peanut oil, soy bean oil, cotton seed oil, and other oils. More than two score oilseed mills and fifty soap-making establishments flourish in the

city. Paris has the largest water-borne traffic, but it is largely local and domestic, not foreign.

During the war France lost nine-tenths of a million tons of shipping and her commerce decreased, but the government sought to encourage trade, primarily by the establishment of trade associations and foreign chambers of commerce. Since 1916 Lyons and Bordeaux have held fairs to show the commercial and industrial products of France and her colonies. In 1921 the government extended its subventions to shipping,

CHART NO. 57- SPECIAL TRADE OF FRANCE.



setting as a goal a merchant marine of five million tons. The government operated the railroads during the World War, returning them to the private companies in 1921. Its automobile and air service aid commerce and communication, but its high tariff policy restricts trade.

Holland.—Dutch commerce had seen its best days even before the American War for Independence and the French Revolution had deprived Holland of trade and of colonies. Yet by 1815 Holland had recovered all of her colonies except Ceylon, the Cape of Good Hope, and parts of Guiana which went to the

English. The richest of all tropical colonies still belong to Holland and to those colonies in part is due the high commercial rank of Holland today. The Dutch East India Company, which dissolved in 1798, had forced the natives into a condition of virtual slavery, the poor inhabitants being compelled to serve the company for half of the year under conditions so bad that the population began to decline. Free labor proving unprofitable, Governor Van den Bosch in 1832 started the so-called "culture system." The government, under that system, controlled the crops planted, required one-fifth of the yield as taxes, and compelled the sale to it of the remainder, if desired, at the "market price." Although the total commerce of the Dutch East Indies, largely with the mother country, is now normally three-fourths of a billion dollars, foreign competition has broken the Dutch monopoly—on coffee, tea, and indigo. Quinine, however, is yet virtually a Javanese monopoly. Banca and Billiton still produce from a sixth to a fourth of the world's tin. Rubber, too, has become increasingly important in recent decades. The Dutch East Indies rank high also in petroleum output. Sugar cane, Peruvian bark, and tobacco, on the whole, are the chief commercial crops. The Dutch West Indies and Guiana are of minor importance, but they do export cocoa, coffee, sugar cane, tobacco, and vanilla.

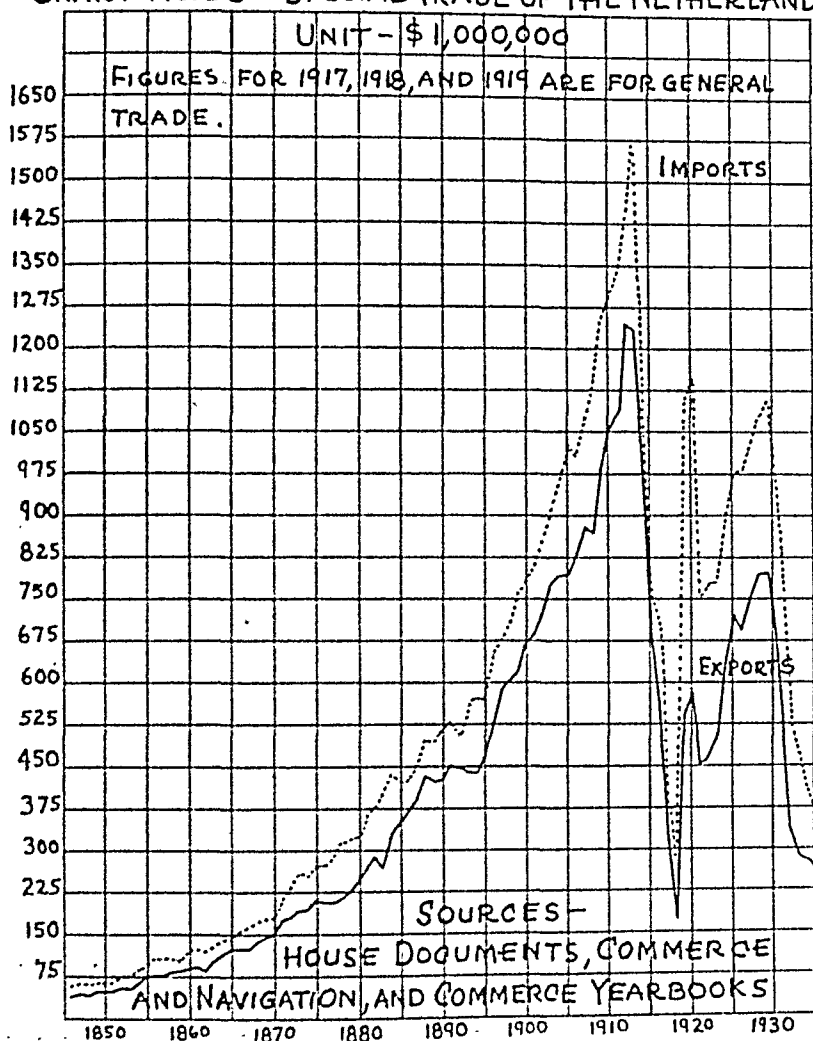
The union with Belgium increased internal trade, but injured commerce, for the Belgian industries required protection. After 1830, for a couple of decades, the country clung to protection, a procedure nearly as harmful to it as wasps to small boys. The "culture system," some people believe, likewise restricted commercial development. Temporary suffering, too, came in the West Indies through the abolition of slave labor.

After 1850 improvements were marked. Tariffs were reduced. Railroad mileage was increased. Trade multiplied about twentyfold between 1850 and 1910, exports and imports combined being worth about two and four-fifths billion dollars in 1913.

Although the ravages of the World War injured the Dutch as well as most other peoples, some speculators made profits. Matthuys P. Rooseboom, in "The Dutch Quandry," pointed

out that distress began with shortage of fuel. Coal, gas, electricity, etc., were rationed and wood-cutting was restrained. Coal in minimum amounts was given at low cost and a little more, in proportion to chimneys, could be bought

CHART No. 58 — SPECIAL TRADE OF THE NETHERLANDS



at a higher price. Correspondence and cabling were restricted. Trade with colonies was likewise restricted. Smuggling was naturally common.³ Efforts were made, of course, to

³ See the *Atlantic Monthly*, August, 1918, Vol. 122, p. 251.

bribe officials. One honest man with a salary of 1500 guilders a year was offered 12,000 guilders a week if he would connive at smuggling.

To handle the Dutch internal and foreign trade are more than 2400 miles of railroads and three million gross tons of shipping. The Rhine, the Meuse, and the Scheldt are likewise important to German commerce. By an agreement with Belgium in 1925 the Scheldt River was neutralized and was opened to trading boats in both peace and war.

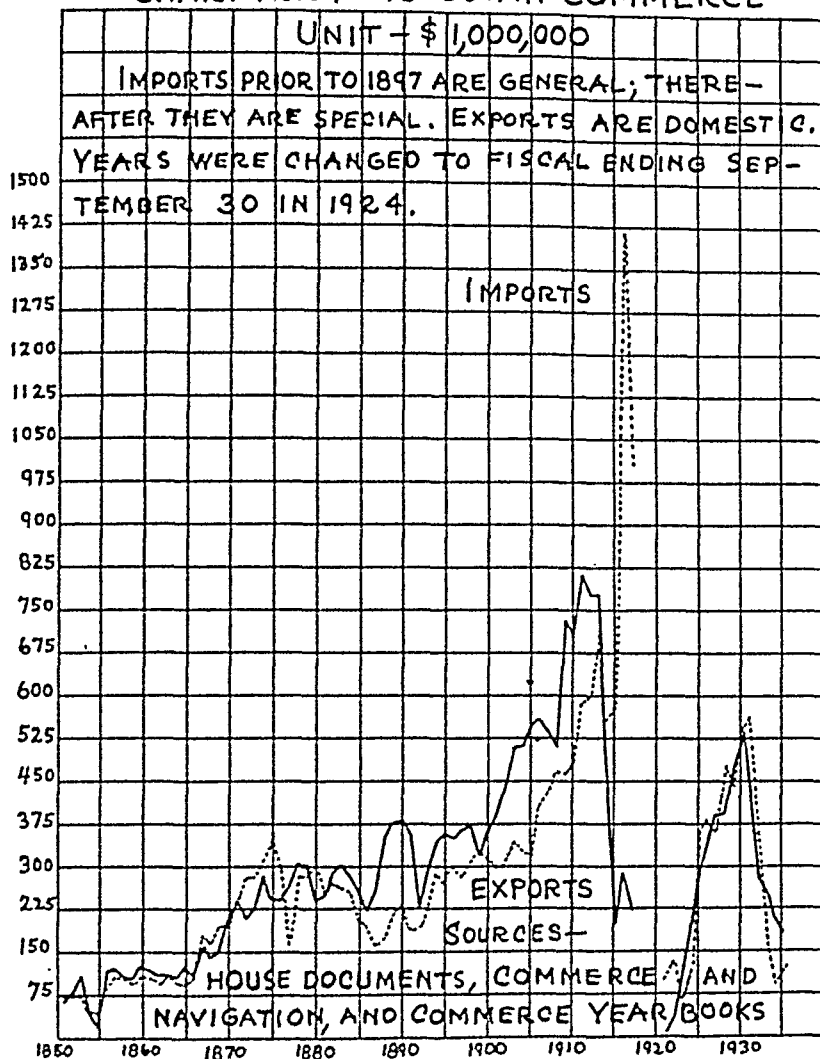
Normally a third of the trade is with Germany. Much of the remaining trade is with England, Belgium, the United States, and France. Exports are normally less valuable than imports. They consist for the most part of textiles, notably cotton piece goods, foodstuffs, diamonds, chemicals, and flower bulbs. Included in the food group are butter, cheese, condensed milk, coffee, eggs, lard, margarine, meat, refined sugar, vegetable oils and vegetables. The imports include raw materials, foodstuffs, machinery, and miscellaneous groups. Cotton, fertilizers, mineral fuels, mineral oils, oil seeds, pine wood, and vegetable oils are in the first group. Coffee, corn, sugar, and wheat products are characteristic food imports. Iron, steel, and machinery are important imports. Chemicals, clothing and millinery, cotton yarn and thread are still other imports.

Russia.—Russian commerce at the beginning of the nineteenth century was almost negligible. The exports were chiefly raw materials such as flax, hemp, grain, tallow, wood, hides, furs, and feathers, but also included some linen and charcoal iron. Archangel, on the White Sea, was the chief port before the founding of St. Petersburg. After 1793 Odessa, on the Black Sea, began to develop.

From 1860 to 1870 as the result of low tariffs and improved transportation facilities commerce doubled, the chief gains coming from the wheat fields of southern Russia. Exports still were largely raw materials but included flax and hemp yarn, string, cordage, and sacking. England sank in importance in Russia's trade and Germany rose. In the early seventies Russia took fourth place in the European commerce, but Belgium and the Netherlands soon passed her as did Aus-

tria-Hungary temporarily. Because of the inferiority of her manufactured products Russia restricted foreign goods and sent her products to the East. Imports and exports combined

CHART No.59 - RUSSIAN COMMERCE



in 1913 were worth about one and a quarter billion dollars. Exports normally exceeded imports.

The war stopped exports. By modifications in the communistic policy commerce became fairly normal by 1923. The

war brought a breakdown in Russia's transportation system, only two-fifths of the locomotives being in working order in 1920. Yet for many years the freight hauled was only a fourth or less of that of 1914. In automobiles and aircraft, until recently, Russia ranked far behind other European nations. Russia's merchant marine was only three-fifths of a million tons in 1933, but two years later it was twice as large.

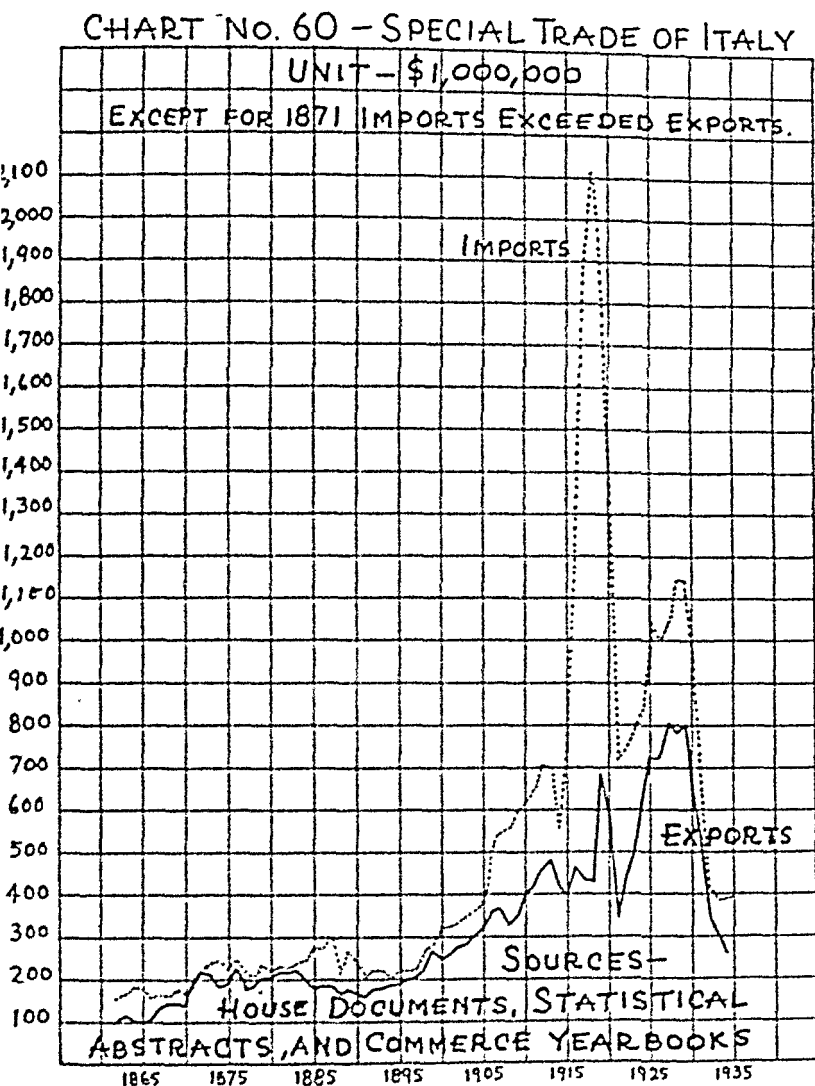
The Russian government maintains a monopoly of foreign trade through the Commissariat for Trade and Commerce. It is conducted by the Commissariat agencies, trading bureaus of the six Constituent Republics, the Consumers' Cooperatives, trading agencies of large industrial syndicates, a few mixed companies in which the government holds stock, and a few firms licensed by the government. Sooner or later both exporters and importers are required to deal with the Soviet authorities.

The leading exports include petroleum, lumber, grain, textiles, and furs; the leading imports are industrial machinery and equipment, ferrous metals, articles manufactured from iron and steel, wool, and cotton. England, Germany, Mongolia, France, Italy, Persia, the Netherlands, China and Belgium generally buy most heavily from Russia. Russia, at times, obtains nearly half of her imports from Germany; she also buys heavily from England. In 1930 Russia obtained more than one-fifth of her imports from the United States, but Germany, England, and Italy by long-term credits guaranteed by the governments to satisfy Soviet needs began to compete for the trade and in 1932 Russia obtained only 4.5 per cent of her imports in the United States. The 1935-agreement should increase the trade between Russia and the United States.

Italy.—With the establishment of the kingdom of Italy the old internal trade barriers disappeared and extreme duties were modified. Railroads, too, were introduced. Between 1859 and 1861 the imports of Italy doubled, and between 1860 and 1910 commerce increased eightfold, almost doubling in the last decade. Yet in per capita trade of the great states only Spain and Russia ranked lower than did Italy. Heavy customs duties in 1878 and 1887 injured trade, and led to a

disastrous tariff war with France. Attempts to build up a colonial empire, moreover, were expensive and disastrous.

In recent decades considerable progress has been made, exports of dairy and poultry products doubling in a decade and



passing wine. In 1921 Italian commerce was practically equal to that of 1913 and until the Great Depression it was well ahead of the 1913-figure, imports being worth more than a billion dollars and exports about four-fifths of a billion. The

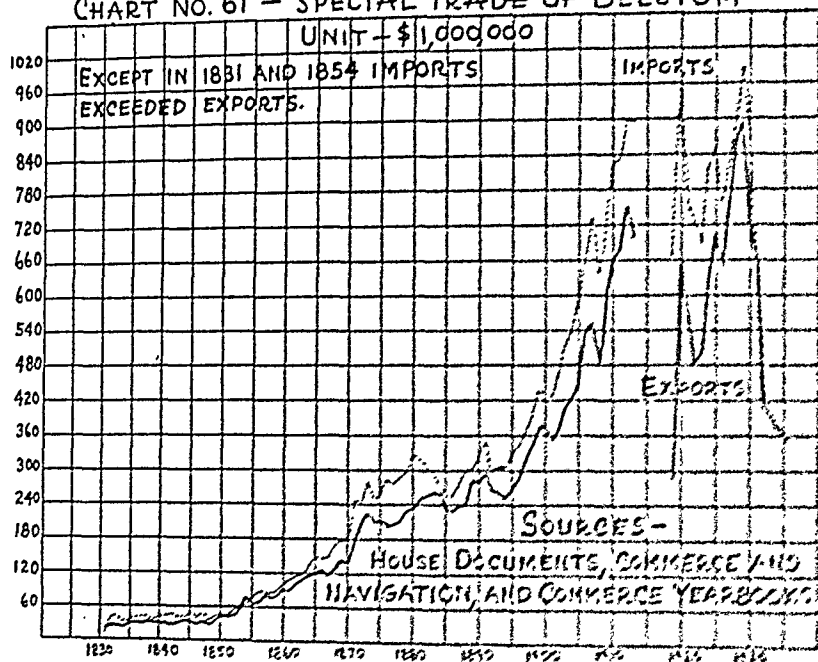
main imports normally are wheat, cotton, coal fuel, iron and steel, machinery, wood, wool, and various food products; the chief exports are cotton manufactures, raw silk, silk and rayon fabrics, fruits and nuts, chemicals, automobiles, rayon and woolen fabrics. Imports usually come in large part from the United States, Germany, France, Argentina, and the United Kingdom. The exports usually go chiefly to Germany, the United States, France, the United Kingdom, Switzerland, and Argentina, but the order, of course, varies from year to year. Much of the commerce goes through Genoa and Naples, the chief ports.

Belgium.—Belgium profited commercially from French occupation at the opening of the nineteenth century, for many of the restrictions on trade were removed. From 1815 to 1830 during the union with the Netherlands industry prospered and with it prospered the export trade in manufactured articles. Railroads and steam power came rapidly into use after 1850, but prosperity was threatened because the Dutch closed the Scheldt to navigation, thus presaging ruin to Antwerp, the one important port. But the Belgians finally bought the privilege of using the river. The rather low tariff inherited from Holland was made more strict temporarily, but after 1850 low duties and commercial treaties helped to stimulate trade for the time being. Other influences such as technical improvements in transportation and manufactures also contributed to the growth. From 1840 to 1850, during protection, trade increased a seventh. During the next decade, a period of transition, it increased nearly two and a half-fold, and by 1910 it was nearly eight times as great as it was in 1860. The expansion just noted was responsible for Antwerp taking second place among continental ports, ranking next to Hamburg.

German occupation and the high tariffs of recent years, of course, damaged Belgian commerce and industry, the slow climb toward the 1913-values being checked by the Great Depression. For the years immediately preceding that time the total value was over \$1,500,000,000, imports exceeding exports slightly. The chief exports are such goods as iron and steel, the textiles, precious stones, glass, machinery, coal-fuel, flax,

zinc, eggs, leather, refined sugar, and fertilizers, virtually all manufactures. Imports consist primarily of foodstuffs and raw materials, fuel, and machinery for the manufactures. Most of the exports are sold to the United Kingdom, France, the Netherlands, Germany, and the United States and the imports are purchased largely from France, Germany, the Netherlands, the United States, the United Kingdom, and Argentina.

CHART NO. 61 - SPECIAL TRADE OF BELGIUM

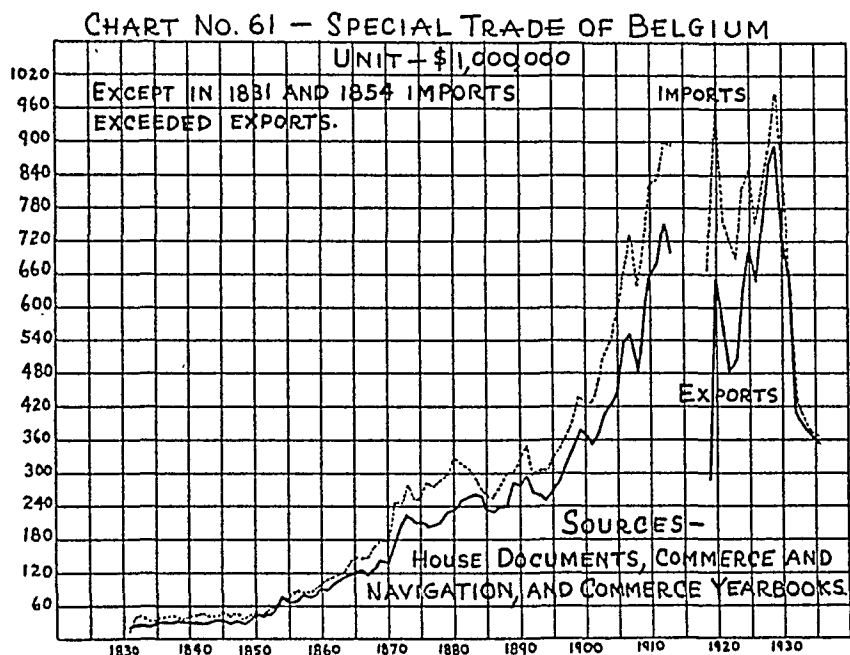


main imports normally are wheat, cotton, coal fuel, iron and steel, machinery, wood, wool, and various food products; the chief exports are cotton manufactures, raw silk, silk and rayon fabrics, fruits and nuts, chemicals, automobiles, rayon and woolen fabrics. Imports usually come in large part from the United States, Germany, France, Argentina, and the United Kingdom. The exports usually go chiefly to Germany, the United States, France, the United Kingdom, Switzerland, and Argentina, but the order, of course, varies from year to year. Much of the commerce goes through Genoa and Naples, the chief ports.

Belgium.—Belgium profited commercially from French occupation at the opening of the nineteenth century, for many of the restrictions on trade were removed. From 1815 to 1830 during the union with the Netherlands industry prospered and with it prospered the export trade in manufactured articles. Railroads and steam power came rapidly into use after 1850, but prosperity was threatened because the Dutch closed the Scheldt to navigation, thus presaging ruin to Antwerp, the one important port. But the Belgians finally bought the privilege of using the river. The rather low tariff inherited from Holland was made more strict temporarily, but after 1850 low duties and commercial treaties helped to stimulate trade for the time being. Other influences such as technical improvements in transportation and manufactures contributed to the growth. From 1840 to 1850, during protection, trade increased a seventh. During the next decade, a period of transition, it increased nearly two and a halffold, and by 1910 it was nearly eight times as great as it was in 1860. The expansion just noted was responsible for Antwerp taking second place among continental ports, ranking next to Hamburg.

German occupation and the high tariffs of recent years, of course, damaged Belgian commerce and industry, but it has climbed toward the 1913-values being checked by the depression. For the years immediately preceding that total value was over \$1,500,000,000, imports exceeding exports slightly. The chief exports are such goods as iron and steel, the textiles, precious stones, glass, machinery, .

zinc, eggs, leather, refined sugar, and fertilizers, virtually all manufactures. Imports consist primarily of foodstuffs and raw materials, fuel, and machinery for the manufactures. Most of the exports are sold to the United Kingdom, France, the Netherlands, Germany, and the United States and the imports are purchased largely from France, Germany, the Netherlands, the United States, the United Kingdom, and Argentina.



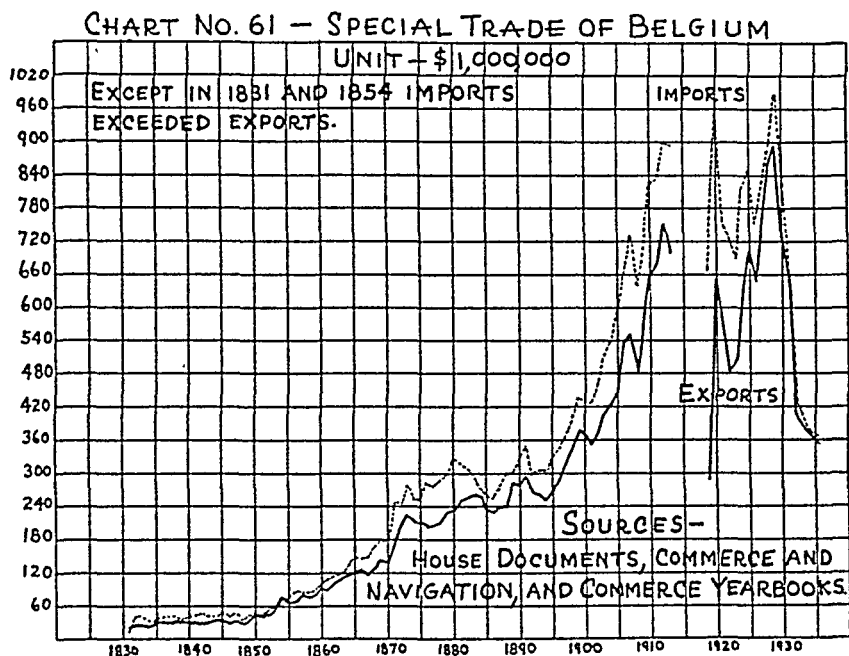
Switzerland.—Although Switzerland in the early part of the nineteenth century suffered not alone from meager resources, but also from restrictive tariffs, the country has prospered primarily through the character of the people, hard work, the removal of the hindrances to internal trade at the formation of the republic in 1848, and the low tariff policy followed in the third quarter of the nineteenth century. Good metalled roads were built long ago over the Alpine passes and in 1823 steamboats began to ply on the Swiss lakes. Railroads soon came and at the present time with about 3700 miles of track the country is one of the best equipped in Europe, area and population considered.

main imports normally are wheat, cotton, coal fuel, iron and steel, machinery, wood, wool, and various food products; the chief exports are cotton manufactures, raw silk, silk and rayon fabrics, fruits and nuts, chemicals, automobiles, rayon and woolen fabrics. Imports usually come in large part from the United States, Germany, France, Argentina, and the United Kingdom. The exports usually go chiefly to Germany, the United States, France, the United Kingdom, Switzerland, and Argentina, but the order, of course, varies from year to year. Much of the commerce goes through Genoa and Naples, the chief ports.

Belgium.—Belgium profited commercially from French occupation at the opening of the nineteenth century, for many of the restrictions on trade were removed. From 1815 to 1830 during the union with the Netherlands industry prospered and with it prospered the export trade in manufactured articles. Railroads and steam power came rapidly into use after 1850, but prosperity was threatened because the Dutch closed the Scheldt to navigation, thus presaging ruin to Antwerp, the one important port. But the Belgians finally bought the privilege of using the river. The rather low tariff inherited from Holland was made more strict temporarily, but after 1850 low duties and commercial treaties helped to stimulate trade for the time being. Other influences such as technical improvements in transportation and manufactures also contributed to the growth. From 1840 to 1850, during protection, trade increased a seventh. During the next decade, a period of transition, it increased nearly two and a half fold, and by 1910 it was nearly eight times as great as it was in 1860. The expansion just noted was responsible for Antwerp taking second place among continental ports, ranking next to Hamburg.

German occupation and the high tariffs of recent years, of course, damaged Belgian commerce and industry, the slow climb toward the 1913-values being checked by the Great Depression. For the years immediately preceding that time the total value was over \$1,500,000,000, imports exceeding exports slightly. The chief exports are such goods as iron and steel, the textiles, precious stones, glass, machinery, coal-fuel, flax,

zinc, eggs, leather, refined sugar, and fertilizers, virtually all manufactures. Imports consist primarily of foodstuffs and raw materials, fuel, and machinery for the manufactures. Most of the exports are sold to the United Kingdom, France, the Netherlands, Germany, and the United States and the imports are purchased largely from France, Germany, the Netherlands, the United States, the United Kingdom, and Argentina.



Switzerland.—Although Switzerland in the early part of the nineteenth century suffered not alone from meager resources, but also from restrictive tariffs, the country has prospered primarily through the character of the people, hard work, the removal of the hindrances to internal trade at the formation of the republic in 1848, and the low tariff policy followed in the third quarter of the nineteenth century. Good metalled roads were built long ago over the Alpine passes and in 1823 steamboats began to ply on the Swiss lakes. Railroads soon came and at the present time with about 3700 miles of track the country is one of the best equipped in Europe, area and population considered.

The World War injured Switzerland by restricting the importation of such raw materials as coal and by shutting off part of the tourist trade. Swiss regulations show the scarcity of the coal, maximum temperatures being set by law for various types of buildings and school baths and hot meals being limited.⁴ The depression of 1920-1921, like the World War, reduced the tourist trade. The income from foreign visitors fell from about 500,000,000 francs to 80,000,000 francs. Exports fell from 3,250,000,000 francs to 1,750,000,000 francs in a year. The adverse trade balance was about 500,000,000 francs, and people were suffering from the lack of food and other necessities.⁵

In time the tourist trade revived to be checked again, of course, by the depression of recent years. Will and Carine Cadby, in "Switzerland; Capital of Winter," visualized a large part of that revival in winter sports,—skiing, bob-sleighbing, and tobogganing. They pictured the simplicity of the inns and the comforts of the hotels, undoubted attractions to tens of thousands of tourists.⁶

In good years the total foreign trade, despite hampering protective tariffs, reaches seven-eighths of a billion dollars, or \$225 per capita. The exports consist largely of such textiles as cottons and silks, watches and clocks to the extent of twenty million yearly, machinery, musical instruments, optical goods, scientific apparatus, dairy products, and chocolate. The chief imports are foodstuffs such as sugar, wheat, and wine, automobiles, chemicals, coal fuels, iron and steel, machinery, and silk. The exports go to all parts of the commercial world, but especially to the United Kingdom, Germany, France, the United States, and Italy. Most of the imports come from the near-by neighbors,—Germany, France, and Italy,—but the United States and the United Kingdom normally rank fourth and fifth in importance.

Austria-Hungary and Three of Her Children.—Austria-Hungary entered the first quarter of the nineteenth century with numerous economic and political handicaps, including an absolute government, high tariffs and tolls, and burdensome

⁴ See the *Review of Reviews*, March, 1918, Vol. 57, pp. 322, 323.

⁵ See *Ibid.*, September, 1922, Vol. 68, pp. 330, 331.

⁶ See *Country Life*, January, 1928, Vol. 49, pp. 60-62.

gild restrictions. The revolutionary movement of 1848 swept Metternich to one side, struck a mortal blow at absolutism, and led to the introduction of representative government. The same year saw the abandonment of prohibitive tariff duties and the beginning of commercial treaties. Internal trade became free for Austria in 1826 and with a few exceptions for the remainder of the monarchy in 1851. In 1860 most of the restrictions on industry were swept away.

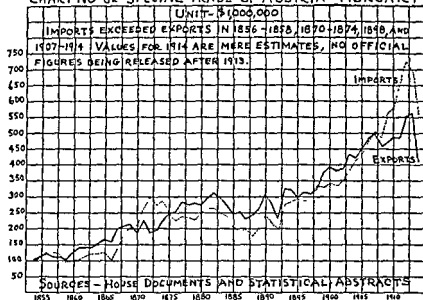
After 1850, consequently, despite heavy taxes and a depreciated currency, both commerce and industry increased. Within two decades commerce doubled. Each state developed its strongest resource, Austria mines and Hungary agriculture. Even a reaction toward protection in the seventies failed to check the growth. In the expansion movement the development of railroads and the commercial agreement between Austria and Hungary in 1867 had played an important part. By the latter measure commercial affairs, including customs duties, laws relating to industrial production, as of beer, brandy, mineral oils, and sugar, legal tender and coinage, rules relating to the Austro-Hungarian Bank, and railway ordinances affecting the common interests of both states were the same for both partners.

At the beginning of the present century exports and imports combined amounted to about three-fourths of a billion dollars. Exports normally exceeded imports in value by a slight margin. Three-fifths of the exports went to Germany. Agricultural products such as wheat, flour, stock, eggs, and sugar, earthenware, pottery, glass, glassware, iron, ironware, fancy goods, millinery, and wood products were the chief exports. Two-fifths of the imports came from Germany. Imports consisted in large part of manufactured goods such as cotton, silk, and wool, but they also included coffee, metals, and tobacco. Other countries of importance in Austro-Hungarian trade were England, India, Italy, the United States, Russia, France, Switzerland, Rumania, and the various Balkan countries.

Although the first boats to go through the Suez Canal in 1869 were three steamers of Austria, less than five per cent of the tonnage using the canal in 1913 was Austrian. Trieste in

Austria and Fiume in Hungary, though they received all possible assistance from the government, remained ports of the second class. Austria-Hungary, though the third state in Europe in size, in 1912 ranked seventh in European commerce, being preceded by England, Germany, France, Netherlands, Belgium, and Russia.

CHART NO 62-SPECIAL TRADE OF AUSTRIA-HUNGARY



Austrian railways are now under efficient management. Electrification of track is proceeding rapidly. Because Austria has no seaports the Danube River should increase in importance, especially with the completion of the Rhine-Main-Danube Canal. Vienna has become an important station in aerial transportation, being the terminus for Munich and Trieste lines and a landing station on the Paris-Constantinople and Prague-Budapest routes. Austria's tariff policy has a bad effect upon her trade and the country needs capital. On July 16, 1932, the League of Nations granted her a loan of forty-two million dollars for twenty years on condition that she refuse to form either a political or an economic union with Germany before 1952.⁷

⁷ Charles H. Sherrill believes that Austria desires union with Hungary, not Germany. See his "A New Austria-Hungary" in the *Review of Reviews*, March, 1931, Vol. 83, pp. 74, 75.

Exports and imports combined amounted to about three-fourths of a billion dollars prior to the Great Depression. About three-fourths of all exports are manufactures, wood, iron and steel, cotton, and silk being the most important. Most of the products go to Germany, Czechoslovakia, Italy, Yugoslavia, Switzerland, Hungary, and other near-by countries. Manufactures constitute two-fifths of the imports in normal years and raw materials, foodstuffs, and beverages constitute more than half. Coal-fuels, cotton fabrics, silk and silk fabrics are all important. Germany, Czechoslovakia, Hungary, Poland, Rumania, and the United States supply about three-fifths of the imports.

In 1925 Hungary opened partially the new international free harbor at Budapest on the Danube. That harbor, like growing railway mileage, telegraphs, telephones, and automobiles, should increase trade both with the west and the east.

The total trade in 1920 was less than an eighth of a billion dollars, but the value of the trade rose to a third of a billion dollars before the Great Depression. Imports usually exceed exports in value. About three-fourths of the imports are manufactured goods and most of the remainder are raw materials and simply-prepared products. Textiles,—cotton, wool, and silk,—wood, coal-fuel, machinery, and iron and steel normally lead the imports. Foodstuffs constitute one-half of the exports and manufactured goods constitute nearly one-fourth. Near-by countries such as Austria, Germany, and Italy buy about one-half of the exports and other near-by countries take most of the remainder. Germany, Rumania, and Austria supply about one-half of the imports.

Hungary has profited from the help of foreign financiers and foreign loans. Jeremiah Smith of Boston attempted to establish Hungary's credit. He established a Bank of Issue. The subscriptions were paid in gold which was deposited in five solvent countries. The bank had the sole right to issue bank notes and could thus check inflation. The gross receipts of the customs, the tobacco monopoly, sugar, and the net receipts of the salt monopoly, securities for the loan, were paid into a fund under Smith's control and were apportioned by him. Most of the agricultural exports could be freely sold

outside of the country' and a new tariff, removing export restrictions, was passed.⁸ The loan permitted by the League was \$50,000,000 for twenty years.

The railroads of Czechoslovakia form a direct connection between the west and east European systems, thus being valuable both for freight and passenger traffic. Because Czechoslovakia has no sea coast the rivers are likewise important, the Elbe, the Oder, and the Danube being the most noteworthy. In order to increase its trade Czechoslovakia built up a system of commercial treaties whose guiding principle was the most-favored-nation clause.

As in the case of most of the countries of eastern Europe the commerce is carried on largely with neighboring states. About one-fourth of the imports come from Germany. Another fourth comes from the free port of Hamburg, Austria, Poland, and Rumania. About half of the exports go to Germany, Austria, the United Kingdom, and Yugoslavia. Exports, except in some depression years, usually exceed imports in value, the two being slightly over the billion mark from 1925 to 1929 inclusive. Raw materials are the chief imports. Raw cotton and wool normally constitute nearly one-fifth of the total and like other textile raw materials they come from distant lands. Machinery, metals, animal products, grains, coal, and mineral oils are other important imports. As in the case of Austria, Belgium, England, and Switzerland most of the exports are manufactures. One-third or more are represented by textiles, cotton goods being supreme. The iron and steel and metal group is also important. Sugar, glass, and shoes are still other important exports. The United States imported only twenty-five per cent as many shoes in 1932 as she had imported in 1929, but seventy-six per cent of those imports were supplied by Czechoslovakia.

Iberia.—Because of poor transportation facilities and high tariffs Spanish commerce was backward during the first half of the nineteenth century. When the tariff system was reformed near the middle of that century conditions improved, commerce increasing fourfold in the next four decades, the importation of coal, textile fibers, implements and machinery

⁸ See the *Outlook*, July 14, 1926, Vol. 143, pp. 372-374. Smith was more than a financier, he was a philanthropist, returning his salary of \$100,000 to the poor.

all showing significant gains. The loss of the chief remaining colonies in 1898 had harmful effects which caused Spain to impose heavy tariffs usually detrimental to commerce. The lack of the progressive spirit likewise hurt trade. For example, the methods of packing and selling fruit were so poor that California fruit had the advantage over Spanish fruit in European markets. Credit, moreover, in the modern sense of the term is scarcely known. From 1890 to 1910 Spanish commerce was virtually stationary.

Seldom has the export and import trade combined passed two-thirds of a billion dollars. The chief exports usually are fruits, nuts, wines, canned goods, olive oil, cork, iron ore, copper, and lead. The main imports, normally worth more than the exports, are cotton and its manufactures, machinery of various kinds, fertilizers, automobiles, corn, lumber, and mineral oils. The United States, Germany, France, and the United Kingdom often lead in Spain's import trade and the United Kingdom, France, Germany, and the United States often buy most heavily from her. The chief Iberian ports are Barcelona, Lisbon, Bilbao, Oporto, and Cartagena.

Portugal is a miniature Spain. The commerce, already virtually ruined, received a severe blow in the loss of Brazil in 1820. Protection, monopolies, and other restrictions still handicap the country. As late as 1911 Portugal's commerce was only a twentieth of that of the Netherlands, a country of approximately the same population. Railway mileage is little more than two thousand and the tonnage of the merchant marine is about one-fifth of a million. Imports are often worth three times as much as the exports but the two combined seldom equal one-sixth of a billion dollars. The chief imports are cotton and its manufactures, wheat, coal, cod-fish, iron and steel, petroleum, sugar, and rice; the leading exports are wines, sardines, cork, coal, fruits, and cotton cloth. On the whole, Portugal trades with much the same countries as does Spain. Her chief ports are Lisbon and Oporto. Her trade revealed signs of recovery from the Great Depression as early as the last six months of 1932.

Scandinavia.—Only with the development of modern commercial facilities has Denmark become significant in com-

merce, for the Baltic trade has been relatively insignificant in recent times and in 1857 Denmark lost the right to charge tolls on vessels passing through the Sound. At one time Denmark's commercial laws were so restrictive that foreign manufactures were delivered to the customs houses and sold at public auction. The lack of roads and inland duties, moreover, retarded domestic commerce, at least until the roads were improved and until the tariff was liberalized by commercial treaties.

When Denmark began to specialize on dairy products her commercial importance increased, and during the last two decades of the nineteenth century her trade doubled. At the beginning of the present century butter constituted two-fifths of the Danish exports, bacon ranked second, and eggs held third place. In foods of animal origin and in living animals exportation exceeded importation. In normal years the Danish food exports, in fact, have a greater per capita value than do all exports of the United States. Butter, bacon, eggs, and livestock usually constitute two-thirds of the domestic exports, and the United Kingdom usually buys from one-half to two-thirds of all exports. A reciprocal trade agreement with England in 1933 favored English coal and steel and Danish bacon, ham, eggs, and butter. The import trade is distributed better than is the export trade; Germany, the United Kingdom, the United States, and Sweden among them normally supply about three-fifths of all purchases. These purchases of imports consist largely of textiles, automobiles and machinery, foodstuffs, mineral fuels, raw materials, and timber. Total foreign commerce amounted to about a billion dollars in 1929.

Norway long has been noted for sea-faring life and fisheries. The forests supply the timber and the fisheries hold out the prospect of comfort if not of wealth. Normally one-tenth of the national income is derived from the fisheries. Before iron ships came into general use Norway's position as a marine power was very high, the most prosperous period being about 1850 to 1870 when she supplanted the United States as the world's greatest carrier outside of the United Kingdom. In 1913 she ranked second to the United States in sailing tonnage and was

fourth in tonnage of steamers and total tonnage. During the World War the country, though a neutral, lost more than eight hundred boats. Tonnage now exceeds four millions, and in proportion to population no country has more shipping than has Norway.

During the war in common with some other neutral countries Norway, despite the loss of shipping, enjoyed prosperity because she carried on a lucrative trade with the Central Powers, a trade which the Allies could not stop. Combined imports and exports before the present depression were worth well over two-fifths of a billion dollars, the former being the more important with the excess paid for largely by the earnings of the merchant marine. The exports fall into three main groups, —fish, forest products, and the products of the electro-chemical industries such as metals, nitrates, and other chemicals. The leading imports are coal and coke, iron and steel, cotton and woolen manufactures, and foodstuffs of various kinds. A reciprocal trade agreement with England in 1933 favored English coal and Norwegian wood products. The United Kingdom, Germany, and the United States generally buy about half of the exports, and the same three countries supply about three-fifths of the imports.

Sweden has greater natural wealth than have Denmark, Finland, and Norway combined and more railway track than any other European country in proportion to population. She also has widely used waterways in the southern part, a canal with a minimum depth of nine feet connecting Goteborg and Stockholm. Those two ports, along with Malmo, have recently been constituted, in part at least, free ports.

Between 1865 and 1888 Sweden used a modified system of free trade, but laws in 1888 and 1892 reintroduced protective policies to the injury of commerce. Trade reached a low level in 1909, but within four years imports increased nearly two-fifths and exports increased almost three-fourths. Their combined value in 1914 was about a half billion dollars. War cut down trade. The imports of grain averaged 284,000 tons, 1911-1913, and only 89,000 tons, 1917-1918. Imports of fodder and manure, of colonial goods and fats almost ceased. The government fixed maximum prices and from the end of 1916

rationed wheat. 'Still later rationing was applied to other foodstuffs and even to clothing. Whenever and wherever possible native products were substituted for the foreign imports. Textiles in particular were limited, but the metal industries boomed, increasing nearly a third between 1914 and 1917. The shipping industry also prospered, reaping enormous profits.

Imports normally exceed exports in value, the combined value in 1929 being about a billion dollars. The largest items in the import trade are coal, textiles and their raw materials, iron and steel, coffee, machinery, wheat, mineral oils, automobiles, yarns and cordage, and fruits and nuts. Most of the coal comes from England and most of the colonial products such as tobacco and coffee come from Germany. Approximately three-fourths of the imports normally come from Germany, the United Kingdom, the United States, and Denmark. Manufactures of wood and steel and iron constitute more than four-fifths of all exports. Much of the match and paper and wood pulp exports go to England and to the United States. England favored wood production in 1933 in return for Sweden's pledge to buy English coal to the extent of forty-seven per cent of her imports. Approximately half of all the exports go to England, the United States, and Germany.

East Baltic Countries and Poland.—In all five of these countries, Finland, Estonia, Latvia, Lithuania, and Poland, agricultural and forest industries predominate, thus determining the nature of the commerce. The chief exports are products of the fields and the forests and the chief imports are products of factories and mines.

In Finland commerce has been restricted most of the time by a protective tariff, but it has been favored by good communication and transportation facilities. Prior to the World War the chief trade of Finland was with Russia, Great Britain, Germany, Denmark, France, and Sweden. During the World War high profits were made on goods going into Russia, but lean months came when Germany occupied the land. The contagious pandemic of bad currency, moreover, injured the country for a while. The trade with Russia has not yet recovered from the war effects, but that with Great Britain has shown

a tendency to increase. England now takes about two-fifths of Finland's exports and supplies about one-fifth of her imports. A reciprocal trade agreement, in 1933, attempted to continue England's supremacy. Germany, however, supplies a higher proportion of Finnish imports, approximately a third at times, than does England. The chief imports are normally cereals and flour, metals, machinery, textile materials, and textile products. The leading exports are timber and wood articles, paper and paper pulp, and animal foods. The timber industry normally, we should reemphasize, contributes three-fifths of Finland's exports and with paper and pulp nine-tenths. After the war agricultural exports tended to revive, but the importation of cereals was temporarily less. In recent years, or until the present depression, the combined exports and imports were slightly in excess of one-third of a billion dollars. They have been divided almost equally since 1920, but the tendency, at least until 1930, was for the imports to pass the exports, a situation probably due to tariff reductions on such articles as coffee, sugar, and wheat and to poor harvests.

Such small agricultural countries as Estonia, Latvia, and Lithuania can hope for little trade. The combined commerce, with the usual order Latvia, Estonia, and Lithuania, seldom equals \$250,000,000. It is thus materially less than that of Finland and little more than a third that of Poland.

Reval is the chief port of Estonia and wants to continue its natural function as an ocean gateway to Russia and as the provisioner of its northern capital.⁹ About four-fifths of all exports consist of wood and wood products, dairy produce and other foodstuffs of animal origin, raw flax, and cotton fabrics. The most significant development in recent years has been in the exportation of butter which represented a third of the export values by 1930. The chief imports are fiber raw materials, machinery, sugar, and foodstuffs. Usually two-thirds of the exports, almost equally divided, go to England and Germany, and nearly a third of the imports come from Germany.

Latvian commerce is restricted to some extent by high tariff duties, especially on coffee, tea, and fruits. Foodstuffs

⁹ See *Ibid.*, February 7, 1920, Vol. 304, p. 335.

normally lead imports in value, rye and wheat being imported to the extent of more than one hundred thousand tons and sugar being important. Next to foodstuffs come textiles and machinery; beverages and tobacco are also important imports. Butter exports have recently passed the timber exports in importance. Vehicles, flax, and rubber goods are other Latvian exports. Latvia usually buys most heavily from Germany and the United States and sells most heavily to Germany, England, and Russia.

As in the case of the other small countries most of the Lithuanian trade is with neighboring nations, normally half of the imports coming from Germany and half to three-fifths of the exports going to that country. Poor educational and social conditions and poor transportation facilities, less than a thousand miles, handicap trade. Live animals often represent one-eighth of all export values, foodstuffs approximately three-fifths, and raw materials about one-fourth. Exports of manufactured goods normally represent less than one-twentieth of all export values, but they represent approximately two-thirds of all import values. About one-tenth of the imports are foodstuffs and one-fourth are raw materials.

Today the Polish railroads are among the best in Europe. The long and numerous rivers also should be of particular importance in the development of Polish trade, but capital and organization have been lacking; hence the necessary repairing of banks, dredging, and other work have been neglected. With the development of the railroads and transportation facilities fairs naturally declined in importance, but the aggregate yearly return prior to the war was estimated at fifteen million dollars. The trade of Poland even yet is characterized by its large number of middlemen, many of whom could be dropped economically.

The war, of course, prostrated commerce. Even in 1922 when commerce had begun to recover, the combined exports and imports were little more than one-quarter of a billion dollars; prior to the Great Depression the value was about two-thirds of a billion dollars. Imports normally exceed exports. Germany, the United States, England, France, and Czechoslovakia usually supply most of Poland's imports; Eng-

land, Germany, Austria, Czechoslovakia, Russia, and France generally buy most of Poland's exports. Germany, on the whole, has one-fourth to one-third of Poland's commerce. From her important cotton manufactures we would expect to find, and we do find, that raw cotton is a leading import. Chemicals, metals and manufactures, and machinery are also important imports, chemicals frequently passing cotton. Wool and leather are important imports for the manufacturing industries. Foodstuffs and beverages normally constitute one-sixth of the imports, raw or simply prepared materials make up two-fifths of the imports, and manufactured articles constitute more than two-fifths of the imports. Wood and its manufactures compose more than one-third of all exports, but less than coal and coke in recent years. Meat, live or dead, is also one of the chief exports; metals and eggs are other exports. Live animals constitute one-tenth of the export values, foodstuffs and beverages make up about one-fourth of the values, and raw or simply prepared materials constitute more than two-fifths of the exports. The manufactured goods make up more than one-eighth of the exports.

The Balkans.—Like the countries just discussed, Denmark, and Hungary, the Balkans are primarily an agricultural region. Their chief exports, consequently, are products of the fields and forests; their leading imports are manufactured goods and raw materials. Because, however, the economic life is largely self-sufficing, due in part to backwardness, mixed races, and poor transportation facilities, the Balkans contribute only one or two per cent of the world's total trade.

This backwardness was perhaps most marked in Serbia and Montenegro and now appears in Yugoslavia and Albania. W. J. Showalter in an article, "The Kingdom of Serbia," pictured the primitive conditions of the people.¹⁰ He referred to their virtues as those of the mountaineer, their dependence on mutton, and their use of chicken pot pie on feast days and of turkey and suckling pigs at Christmas. The peasant, he said, used corn, his chief crop, for his corn cake, the fodder for his cattle, and the grain for his hogs. Because Serbia had low standards of living and was agriculturally self-sufficing, commerce

¹⁰ See the *National Geographic Magazine*, April, 1915, Vol. XXVII, p. 422 for a description of the dress of the people.

was small. In the first decade of the present century the average foreign trade was less than thirty million dollars. Normally, exports exceeded imports in value. Copper was the only mineral export of note. Eggs, grain, hides, meat, and prunes were the leading agricultural exports. The chief purchasers of Servian products were Austria-Hungary, Germany, and Turkey. Imports came largely from Austria-Hungary, Germany, and Great Britain. They consisted of iron, leather, salt, sugar, and textile fabrics, cotton and wool in particular.

Trade in Montenegro was handicapped by tariff duties. Many families emigrated. Another cause of suffering was the high duty encountered by exported cattle at the Austrian frontier. Smuggling naturally resulted. On the other hand, the development of communication and transportation facilities stimulated trade. Austrian Lloyd steamers called regularly at Montenegrin ports and important harbor improvements were made. In some years the imports were three times as valuable as were the exports. The two combined were worth about \$1,500,000 a year in the first decade of the present century. Exports included cattle, smoked and salted meat, cheese, hides, salted fish, pyrethrin, sumach, tobacco, and wool. The imports were largely manufactured goods such as candles, iron utensils, soap, textiles, and weapons, but they also included colonial wares. Naturally much of the trade was with Austria-Hungary and the Balkan states.

Communication and transportation facilities in Yugoslavia are being improved rapidly, thus encouraging commerce. Imports, on the average, doubled exports from 1919 to 1923 and in few years have the exports passed imports in value. The total commerce in 1925, a high point, amounted to \$301,000,000; it normally amounts to about \$250,000,000. The chief imports are textiles, iron and steel, various food products, machinery, and chemicals; the chief domestic exports are wood, minerals, and foodstuffs. Agricultural products, of which eggs, wheat, hogs, cattle, meats, sheep and goats, and prunes are chief, represent about one-half of the total exports. Wood in its various forms represents nearly another one-fourth of the total export value. Copper, cement, and lead are the leading mineral exports. The growing importance of chemicals

and fertilizers in the export trade is significant. Germany, Czechoslovakia, Austria, and Italy usually furnish about three-fifths of Yugoslavia's imports and take about two-thirds of her exports.

Albania has a few good natural harbors, but they have not been developed. The Bojana, the outlet of Lake Scutari to the Adriatic, is the only navigable river. After Albania recovered her independence she began to develop roads. During the war Austria began to construct railroads for military reasons; most of these lines still exist. Early in 1925 a German aeroplane service offered facilities to such towns as Scutari, Tirana, Koritsa, and Valona. Two Italian steamship lines supply the main connection with the outside world. So Italy naturally dominates the foreign trade which normally amounts to about ten million dollars. The chief imports are textiles, metals, cereals, coffee, and sugar; the leading exports are such agricultural products as cheese, eggs, olives and olive oil, and skins, fish, and bitumen.

Rumanian trade has fluctuated widely from year to year, primarily because of its dependence upon grain. Contributing to its general growth are the state-owned telegraphs, telephones, and railroads. As late as 1901 to 1905 the total foreign trade averaged only an eighth of a billion dollars. Imports averaged nearly a fifth of a billion dollars for 1916 to 1920, but exports fell to little more than thirty-six millions. When crops are good, the exports invariably exceed the imports in value. In 1927 the two were worth more than two-fifths of a billion dollars. In that year, a high point in Rumanian commerce, corn, barley, wheat, oats, and beans in the order named constituted about one-half of all domestic exports. Swine, cattle, eggs, and fresh meats composed about one-twelfth of the exports. Wood products made up nearly one-eighth of the total and oil products constituted more than one-sixth. Vegetable textiles, ores, metals and metal manufactures, wool and its manufactures, and machinery are the four chief groups of imports; their combined value was more than two-thirds of the total. Most of the trade is with near-by countries.

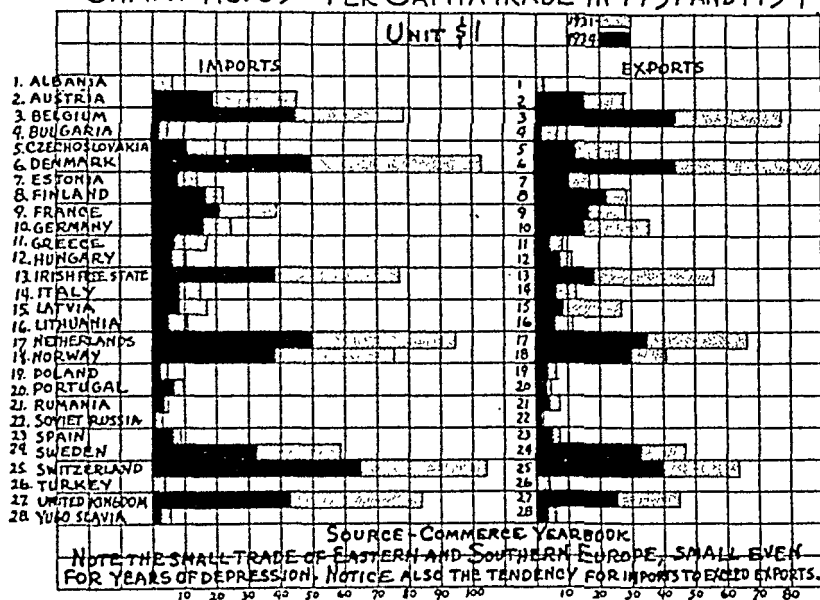
In the early part of the nineteenth century, as in most of eastern Europe, barter in Bulgaria was common. It still exists

in the rural districts, but is gradually declining. As modern communication and transportation facilities increased, the fairs, which once attracted hosts of foreigners and natives, decreased in importance. Yet as late as 1898 ninety-seven fairs were held and a considerable amount of business was transacted. The Balkan War had little permanent effect on economic conditions. With the World War the situation was otherwise. From 1915 to 1917 the trade balance was favorable, but the country was dormant economically and financially. Trade was limited virtually to the Central Powers. Yet for the first time the exports of tobacco attained commercial importance. Conditions, however, grew worse, the trade balance, 1918-1920, becoming adverse. Manufactured goods were needed greatly; hence imports increased. Exports, on the other hand, decreased, primarily for two reasons: first, Bulgaria lost fertile land which produced about one-ninth of the wheat crop, and second, the war itself had resulted in marked disorganization. To rehabilitate the country Bulgaria conscripted labor for productive purposes, especially for the construction of roads and railroads, males of twenty being required to work for sixteen months and females of eighteen for half that time. In 1932 total commerce fell below the fifty million mark. Exports consist chiefly of foodstuffs. Tobacco leaf usually makes up two-fifths of the export values. Textiles are as important in the import trade as is tobacco in the export trade. Metals and their manufactures, machinery, and chemicals are other important imports. Germany, Austria, Poland, and Italy are usually most important in Bulgarian trade, which in general is with the near-by states.

The Greeks long have been noted as a sea-faring people. Because of their natural aptitude for commerce and their love of a sea-faring life they control a considerable proportion of the eastern trade. Their commercial colonies exist in the large Mediterranean and Black Sea ports. In some of the near-by islands every Greek householder is reputed to be the owner or the joint owner of a boat. Greek tonnage in foreign trade amounted to little more than a fifth of a million in 1888 but to nearly one and a half millions forty-two years later. Unfortunately internal means of communication have not

shown similar progress. In the first decade of the present century Greek imports for consumption and domestic exports averaged less than fifty million dollars. The high point came in 1919 with imports exceeding \$289,000,000 and exports exceeding \$142,000,000. The normal value in recent years, or rather to the Great Depression, was approximately one-fourth of a billion dollars with imports double the exports. The leading imports are usually wheat and other foodstuffs, textiles, iron and steel, machinery, coal and mineral fuels, wood, fish, and sugar. Wheat generally constitutes one-sixth to one-

CHART NO. 63 - PER CAPITA TRADE IN 1931 AND 1934



fifth of the total value. The main exports are tobacco leaf, currants, raisins, wine, olives, olive oil, hides, and figs. Tobacco now composes more than one-half of all export values and currants make up more than one-sixth. All of the leading exports are agricultural products, another proof of the industrial backwardness. The leading buyers of Greek products are usually England, Italy, Germany, Russia, and the United States. Greece, perhaps because of the remittances of her citizens in America, often buys more goods from the United States than from any other country. A merchant marine,

good harbors, the cheapness of ocean transportation, and the likeness of Greek industries to those of the neighboring states lessen the trade with the countries close at hand.

Poor roads, poor government, and frequent wars long hindered the Turkish commerce, but the country has recently come to life. In the first decade of the present century commerce averaged about one-fifth of a billion dollars. In 1911-1912 it approximated one-third of a billion. War, of course, damaged industry, but recovery came and the total averaged more than a fifth of a billion dollars from 1924 to 1929 inclusive. Imports until 1929 usually exceeded exports by a large margin. As in other backward countries we would expect to find, and we do find, cotton and its manufactures the leading import, normally representing one-fourth of all values. Metals, machinery, wool and other textiles, and sugar, coffee, and spices are other important imports. Tobacco, until recently, made up about one-third of the value of domestic exports and fruits and vegetables constituted one-sixth of domestic export values. Eggs, barley, opium, and wool are other exports. Germany, Italy, England, France, and the United States usually supply about three-fifths of Turkey's imports; Italy, Germany, the United States, France, and England often buy more than three-fourths of her exports.

Internal Trade.—In most countries the domestic trade, though less spectacular than the foreign trade, is the more important. Significant changes have occurred in the internal trade since 1800. The development of transportation and communication facilities, banking and capital, and higher standards of living have caused a decrease in fairs and markets and the use of barter and have promoted the rise of large retail and wholesale houses. Fine department stores, chain store systems, and mail order houses compete for the business of western Europe and carry on their operations in all of Europe.

Yet fairs and markets have not disappeared completely from western Europe and they still transact much business in southern and eastern Europe. To some of these markets and fairs and then to the internal trade of Russia we shall turn our attention.

Christian Augustus Fischer, a German traveller, will be quoted on an early market scene in Madrid near the beginning of the nineteenth century:

The matten bell announces the early mass—the streets become more animated. Veiled women in black, men in long brown cloaks with *redesillas*, (wearing their hair in a kind of net-work, hanging low down their backs). The doors of the balconies open, and water is sprinkled out before every house.

Now the goat-keepers with their little herds enter the gates, crying Milk! Milk! Goat's Milk! fresh and warm. Who will have any? There I see market-women pass by with their asses loaded with vegetables; bakers with bread in carts, made of Spanish reed; water-carriers and porters hastening to commence their day's work, while with a hoarse voice two consequential-looking alguazils proclaim the thefts committel on the preceding night.

By degrees, all the warehouses, shops, and booths are opened. The publicans (taberneros) expose their wine cups; the chocolate-women get their pots ready; the water-carriers begin to chant their "Quien bebe?" (Who'll drink?) and the hackney coach and hackney chaise drivers, with the persons who let mules for hire, take their usual stands.

Soon the whole street resounds with the various cries of numberless criers. Cod, white cod! Onions! onions from Galicia! Walnuts, walnuts from Biscay! Oranges, oranges from Murcia! Hard smoked sausages from Estramadura! Tomatoes! large tomatoes! Sweet citrons! sweet citrons! Barley water! Ice water! ice water! A new journal! a new journal! A new gazette! Water melons! Long Malaga raisins! Olives, olives from Seville! Milk! rolls! Milk, rolls, fresh and hot! Grapes! grapes! Figs, new figs! Pomegranates, pomegranates from Valencia!

It strikes ten...¹¹

Scenes, often less active, occurred in other cities of Europe in the early part of the nineteenth century and lasted on until the twentieth century. Sophie Wilds in "Where Music Rules the Fleeting Hour" refers to some of those methods, to the singing laborers and to the slow-talking business people of Hungary. She thus pictures a market scene, one duplicated in numerous other places:

On one street there were only squealing piglets for sale, and the buyer would walk off with a pig under his arm. Up another street stood peasant women, hours on end, beside their baskets of eggs and butter. Down another street were flowers and fruits, and at the corner, rabbits. Horses hauled the wagons to their allotted places in the square and were then themselves put up in some near-by stable for the day. The wagons formed the counters for the sale of goods. One man had a load of ice, and from time to time some one would buy a big chunk and carry it off on his shoulder. One young woman tucked a large cake under her arm and then

¹¹ *The Annual Register*, 1808 (London, 1810) Vol. 50, C, p. 63.

stopped to have a friendly chat with a woman acquaintance who herself was cradling a hen in her arms.¹²

Melville Chater in an article entitled "Jugoslavia—Ten Years After" describes Zagreb's market as a resplendent sight, but like many others, his chief interest was in the women:

A market is just a market, but Zagreb's more nearly resemble a civic fete, performed in fancy costume and supervised by a skilled stage director. Each of the hundreds of Croatian stall women is adorned in gorgeous, hand-woven raiment, including short skirts and white stockings on plump legs, whose calves are encircled by coquettish cherry-colored bows.

Why these early-rising, produce-toting peasants from outlying farms thus begay themselves as for a festival remains for sober-clothed Westerners a mystery, for this gala sight is staged every day of the year. At dawn municipal employees set up the stalls. For six hours the spectacle goes on. Then at noon, as if a wand had been waved, everything—stalls, produce, costumed peasants—melts away. The square changes like a stage denuded of scenery and the rapt on-looker wakes as from illusionment.¹³

Bruno Rosselli in "Albania—A Poor Little Rich Land" criticized the crude methods of selling:

Scissors and calico; glass beads, matches, and safety-pins; combs, needles, mirrors, envelopes, and buttons, were only a few of the hundreds of items of a *mercanzia*, that is brought in bulk as such, without any specification or explanation as to how many objects of one kind are in a case and how many of another.¹⁴

Much of Russia's trade long was handled in her town markets and fairs. Of these institutions travellers were often the reverse of flattering. Dr. E. D. Clarke, by his condemnation of Russian habits—"there exists not a single individual in a thousand whose body is destitute of vermin" and by his unflattering picture of Moscow—hints at the limitations of trade. Concerning that historic city, he says:

You behold nothing but a wide and scattered suburb, huts, gardens, pigsties, brick walls, churches, dunghills, palaces, timberyards, warehouses, and a refuse, as it were, of materials sufficient to stock an empire with miserable towns and miserable villages.¹⁵

¹² *Country Life*, July, 1929, Vol. 56, p. 63.

¹³ *The National Geographic Magazine*, September, 1930, Vol. 58, p. 305 and pp. 257-310 for entire article.

¹⁴ *The Outlook*, October 17, 1923, Vol. 135, p. 281.

¹⁵ *Travels in various Countries of Europe, Asia and Africa—Russia, Tartary, and Turkey* (Landell and Davies, London, 1810) Vol. I, pp. 47-51 and 90-98.

Even in the Russian cities of the early twentieth century a traveller could see the peddlers, the grouping of booths, and extremes of every sort. Annetta Halliday—Antona brings us this scene from Moscow in an article entitled "Strange Russia":

We saw many peddlers selling religious prints, pictured saints, playing cards and candles all from the same pack. The streets were usually well thronged, for the genuine Russian enjoys a crowd, and through the multitude wandered venders of white bread, and cheese fritters, and dancing bears—great favorites in the Czar's kingdom—with their masters, while flocks of sacred white pigeons flew tranquilly overhead.

The shop keepers, in the great bazaars, wrapped in their pellisses of white wolf-skin, poked charcoal into the everlasting samovar, or tea-urn, and noisily invited our patronage for certain articles of native art industry.

The booths are divided into rows. There is Cloth Merchants' Row, Silk Merchants' Row, Haberdashers' Row, Portmanteau Row, Feather Bed Row, and Watchmakers' Row, to say nothing of certain hatters, furriers, book-sellers, coppersmiths, and trunk makers. Under the gloomy archways image sellers and toy traders share space and attention with retailers of all kinds of miscellaneous articles, while, as the Russians are essentially fond of boots of every description, one entire row is occupied by the Boot Row, where the most bewildering display is exhibited, comprising top boots, Oxonians, patent-leather, Wellingtons, Tamboffs—tall boots of scarlet leather with an odor like sandal-wood—Kazan-boots, steppe-boots, and a few pairs of the enormous jack-boots formerly worn by the Emperor's guards in the Crimea, but which disappeared with the Czar Nicholas I.

Occasionally from some dusky nook like a dark hole in the wall glittered a goldsmith's or jeweller's stall, sparkling with treasure and color, like some of the old Moorish shops in Granada or Seville; the tea-stalls, always thronged sent forth a most invigorating fragrance, and through the length of the arcade strayed people, motley indeed—superstition, skepticism, wealth, and pauperdom—for in Russia life is all contrast, the rich are very rich, the poor are very poor, and for every costume of cloth of gold one sees two of rags.¹⁶

Not until 1850 did systematic trade exist in Russia and as late as 1914 sixteen thousand fairs were held in the empire, three-fourths in the European districts. Those at Novgorod and Irbit were the most important.

The most outstanding development in domestic commerce has been in the field of consumers' cooperative societies, which, with the support of the government, are expected to replace the private retail and wholesale selling agencies throughout the country. The registered membership in the Union of Consumers' Cooperatives grew from nineteen million at the beginning of 1928 to seventy-eight million at the beginning of 1933,

including nineteen-twentieths of the adult population. The Union of Consumers' Cooperatives, or the *Centrosoyuz*, as it is called, then had more than four-fifths of all retail trading. In 1933 it operated about 200,100 stores¹⁷ in comparison with 94,200 in 1928. Increased capital made possible large investments in agricultural enterprises, mechanized bakeries, and cooperative restaurants, and furthermore led to the opening of new communal kitchens, bakeries, and other conveniences for the people. Among the retail stores of the *Centrosoyuz* are the "closed distribution points" established by the government to provide foodstuffs and various necessities for the laborers of individual factories. In such stores service is prompt and overhead is small, charges being debited against the individual savings accounts. A special division of the Commissariat of Trade has been established to supervise the exchange of goods, especially of foodstuffs, between the country and the city. The Commissariat of Trade, moreover, has been split into two divisions, the Commissariat of Foreign Trade and the Commissariat of Supplies. New organizations, devoted to one commodity, as in industry, control the gathering and the distribution of supplies in each field, as, for example, dairy products, fish, meat, poultry and eggs, and vegetable oils.

The effect of the first Five-Year Plan on internal trade was pictured thus by L. H. Guest, an unfriendly critic, in "Russia Industrialized":

The whole of the nations of Soviet Russia are mobilized for the carrying out of the Five-year plan. Food is rationed, boots and clothing are rationed, even cigarettes are rationed. And, what is quite as important as the rationing, there are practically no luxuries obtainable; for example, tinned sardines or salmon, tinned fruits or jams—these are almost absent. Cakes or biscuits are great luxuries. Tea is a ration, but is measured in ounces per month. Coffee is a great luxury. Cocoa may exist, but I never saw it. Fruit and vegetables exist none too plentifully, and only when in season in Russia. Tinned meat, potted meats, prepared soups, jellies, etc. are all practically nonexistent. The simplest way to put it is perhaps to say that in any little village grocery shop in Great Britain there are more varieties of things to eat than in any of the largest cooperative stores in Russia.¹⁸

¹⁷ Because of the rise of municipal stores since 1931 the stores of the *Centrosoyuz* fell to about 168,300 in 1934. Those stores, however, conducted 38.3 per cent of all internal trade.

¹⁸ *The Nineteenth Century*, December, 1931, Vol. 110, pp. 697, 698.

SELECTED REFERENCES

Angell, J. W. *The Recovery of Germany* (New Haven, Council of Foreign Relations, 1932) Chapters VI, VII, and IX.

Day, Clive. *A History of Commerce* (New York, Longmans, Green and Company, 1924) Chapters XXXV-XLIV and LIV-LVIII.

Fay, C. R. *Cooperation at Home and Abroad* (London, P. S. King and Son, 1925) Part IV, Chapters I-VI.

Gide, Charles. *Consumer's Cooperative Societies* (New York, Alfred A. Knopf, 1922) Chapters IV-XII.

Heckscher, E. F., Bergendal, Kurt, Keilhau, Wilhelm, Cohen, Einar, and Thorsteinsson, Thorsteinn. *Sweden, Norway, Denmark and Iceland in the World War* (New Haven, For the Carnegie Endowment of International Peace, 1926) Part I, Chapters I-III.

Ogg, F. A. and Sharp, W. R. *Economic Development of Modern Europe* (New York, The Macmillan Company, 1926) Chapters XIII and XIV.

Patterson, E. M. *The World's Economic Dilemma* (New York, McGraw-Hill Book Company, 1930) Chapters X-XIII.

Price, M. P. *The Economic Problems of Europe Pre-War and After* (New York, The Macmillan Company, 1928) Chapters II-VI.

CHAPTER XXX.

SOME GRAVE PROBLEMS RESULTING FROM OR ACCENTUATED BY WAR

The Cost of War.—The greatest problem facing the world today is war, past, present, and future. The scourge of wholesale murders in the name of nationalism long has been hurled on the world by ambitious and scheming politicians masquerading as statesmen and by greedy capitalists and manufacturers posing as patriots. In the name of patriotism, as interpreted by such self-styled and interested prophets, millions of lives have been sacrificed at the shambles and in the dreary homes bare of the necessities of life because of heavy war taxation, the rising prices produced by inflation, and the spirit of sacrifice which denies food essential for health and medical care in early sickness in order that the "boys" may have all of the comforts attainable in the hell to which they have been condemned on earth.

At the present time in some countries nine-tenths of the expenditures go for war purposes, past, present, and future. Nations are striving for the largest and best armies, navies, and airfleets, in short, for anything and everything which may be useful in killing off their fellow-men. They argue that if their forces are sufficiently strong they will escape attack. Even if a nation is sincere in its preparations for war to avoid war, its growing armaments provoke other nations to increase their armies, navies, and airfleets for defense purposes in case of need. Even before the Napoleonic Wars Montesquieu referred to such growing expenditures:

A new disease has spread through Europe; it has seized on our sovereigns and makes them maintain an inordinate number of troops. It is intensified,

and of necessity becomes infectious, for as soon as one State increases its forces the others at once increase theirs, so that nothing is gained by it except general ruin. Each monarch keeps on foot as many armies as if his people were in danger of extermination; and this struggle of all against all is called peace! Thus Europe is ruined to such a degree that private persons, in the present position of the three richest Powers of that quarter of the globe, would not have the means of living. We are poor with the wealth and commerce of the whole world; soon by dint of having soldiers, we shall have nothing but soldiers, and be like the Tartars. For that we need only make effective the new invention of militias established in most of Europe, and carry it to the same excess as we have the regular troops.¹

When the Napoleonic Wars began, England's debt was £268,-000,000 and when they closed it was £800,000,000. Expenditures increased from £20,000,000 to £107,000,000 yearly, a fivefold increase. Yet that growth was infinitesimal in comparison with the growth a century later. The public debts arising from the World War are beyond our comprehension. France was spending \$21,000,000 daily by 1917 and Russia \$47,000,000. Great Britain's expenditures reached \$33,000,-000 daily by 1918 and before the year closed Germany's figure had exceeded that by more than a million dollars.

The total debt owed to other countries by England as a result of the World War reached \$6,600,000,000 in March, 1919, but England had advanced nearly \$10,000,000,000 to other countries, more than a third to Russia prior to the Russian revolutions of 1917. France owed to other countries about \$6,400,000,000 and had advanced slightly less than half that sum to her eight Continental Allies. The following table shows the effects on six nations as measured in millions of dollars:

	Internal Debt		External 1919-1920		
	Funded	Floating	Total	Total	Grand Total
Great Britain	24,245	7,844	32,089	6,222	38,311
France	20,215	14,554	34,769	6,481	41,250
Russia	8,993	9,634	18,627	5,937	24,564
Italy	10,145	3,793	13,938	3,911	17,849
Germany	21,896	24,990	46,886		46,886
Austria-Hungary ..	10,624	9,642	20,266	857	21,123

¹ *The Spirit of the Laws*, Book XIII, Chapter 17 as quoted by Bastable, C. F. *Public Finance*, p. 63.

The immense floating debts of Germany and France show the chaotic condition of their finances as the result of the war.²

Even in the early thirties, presumably a time of peace, the chief nations of the world, nevertheless, were spending three or four billion dollars a year in preparation for war. Surely a League of Nations, a World Court, Disarmament Conferences, or some form of cooperation should eliminate such a public scourge and save the taxpayers and their loved ones who are gradually being bled to death on the altar of Mars.

At the close of 1932 "the total gross international indebtedness of countries on account of fixed-interest securities," but exclusive of direct industrial investment, was \$35,000,000,000 in gold and that was exclusive of the \$9,000,000,000 political debt of Germany. The interest was then about \$2,500,000,000, or one-fifth of the world's monetary stock. Payment of those obligations can be made for the most part only in goods, if tariffs permit, and the world's import trade fell from about \$35,585,000,000 in 1929 to \$12,011,000,000 in 1934. Despite a slight decline for Europe in 1935 world trade, however, revealed a tendency to increase.³

And what shall we say of 1936? The League of Nations has confessed its weakness. Italy has crushed Ethiopia. Germany has seized the Rhineland, having demolished the last vestiges of the unjust treaty of Versailles. Austria and Turkey also have scrapped their defeatist treaties. A fear-maddened Europe is pouring out more billions in preparation for war. In April with 5,500,000 men under arms and 7,000,000 more men waiting for the bugle call the "Europe of 1936 made the Europe of 1914 look like a shooting-gallery." Russia, moreover, having guaranteed the independence of Mongolia,

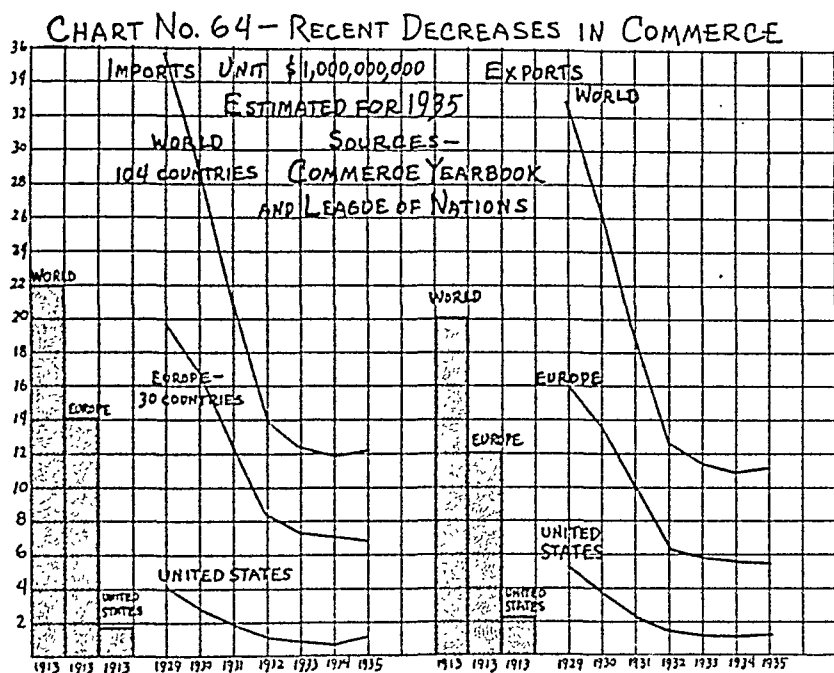
² See Mackenzie, Robert *The Nineteenth Century* (Thomas Nelson and Sons, London, 1909) p. 75, and Ogg, F. A. and Sharp, W. R. *Economic Development of Modern Europe*, p. 823.

³ See *The World Economic Survey, 1932-1933* (The League of Nations, Geneva, 1933) pp. 262, 263, *Statistical Year Book, 1934-1935* (The League of Nations, Geneva, 1935) p. 209, the *League of Nations Chronicle*, March, 1934, p. 2, and various League publications.

War expenses, moreover, have a habit of multiplying. For instance, E. L. Bogart's 1919-figure of \$337,946,179 657 as the cost of the World War has been doubled. The following statement from the *Louisville Courier-Journal*, August 5, 1935, is significant:

"The combined cost of the war to all Nations was \$650,000,000,000, including ruined fortunes, disabled steamers and railroads, loss in production, and expenditures for the aid of war victims—an average of \$25,000 for every person who died either in combat or as an innocent victim of the struggle."

was clashing with Japan in border disputes over the Lake Bor region of Outer Mongolia and Manchukuo, the 1934-buffer state of the Mikado. Part of China now threatens war against Japan. In February, the London Naval Conference failed to restrict the construction of war vessels, Japan and Italy withdrawing. England, France, and the United States could agree on little more than publicity relative to their construction programs. The construction of fighting boats, on the sea, but also for the air, proceeds with feverish haste. Many a coun-



try, moreover, is a seething caldron of discontent with an eruption of Vesuvian proportions threatened. And in July in Spain occurred a bloody revolution which, within a month, had excited the nations of western Europe by the confiscation of the property of their citizens and in a few instances by the taking of the lives of their citizens. The frightened nations continue to prepare for war. Would that the nations of the world could eat the lotus food portrayed in the *Odyssey* and enjoy absolute forgetfulness, at least in preparations for war!

EUROPE'S VAST ARMED CAMP

	Standing Armies (Estimated)	Reserves	Pre-War Armies	Air- Planes
Britain	337,000	1,000,000	414,000	1,750
Russia	1,300,000	2,500,000	108,000	7,000
Germany	600,000	1,000,000	718,000	2,800
France	684,000	4,000,000	975,000	4,000
Italy	979,000	1,250,000	293,000	3,700
Poland	273,000	700,000	192,000	800
Belgium	67,000	600,000	30,000	250
Austria	70,000	200,000	57,000	Unknown
Bulgaria	23,000	33,000	52,000	Unknown
Hungary	35,000	35,000	66,000	Unknown
Yugoslavia	140,000	150,000	153,000	580
Czechoslovakia	150,000	240,000	74,000	687
Greece	67,000	70,000	67,000	118
Holland	60,000	75,000	35,000	32
Rumania	180,000	200,000	160,000	820
Spain	180,000	180,000	86,000	500
Switzerland	45,000	450,000	3,600	240 4

Reparations and Debts.—Out of the World War have come few problems more bitter and acute than reparations and debts. The Allies wanted to force Germany to pay heavy reparations and the United States wanted to force the Allies to settle with her in full. Our late Allies have prayed, "Forgive us our debts as we forgive our debtors," in reparations at least, and regard us as a Shylock because we would exact the last pound of flesh. Each nation in its attitude, though posing often as humanitarian, is, in reality, as selfish as the only daughter who prayed, "Oh Lord I do not ask anything for myself, but please send mama a nice son-in-law."

When the war began, Germany's debt was 5,000,000,000 marks; when it closed, the debt, exclusive of the reparations bill, was 140,000,000,000 marks. France and Belgium in particular tried to force Germany to pay as much as possible. In 1920 reparation receipts were allocated in the following way: France, fifty-two per cent; Great Britain, twenty-two; Italy, ten; Belgium, eight; and the other allies lesser amounts. By a later settlement in 1921 Germany was required to issue three classes of bonds, A for twelve billion gold marks, B for thirty-eight billion, and C for eighty-two billion. Annual payments were to be made on the first two at the rate of six per

4 See the *Literary Digest*, April 11, 1936, Vol. 121, No 15, p 10.

cent, one per cent going into a sinking fund. A slight flexibility appeared in that the sum yearly was set at two billion gold marks plus twenty-six per cent of the German export value. Class C bonds were to pay no interest until the Reparations Commission believed that payments could be made from the export tax. But Germany proved unable to pay and France and Belgium seized the Ruhr Valley, which was held about two and a half years. Although authorities differ, Germany probably had paid six billion dollars by 1925.

The Dawes Plan of 1924 contemplated the balancing of the German budget, which would require "temporary relief from charges for treaty obligations." It insisted that Germany's taxes and debt charges be made not less than those of the Allies and that all of her budgetary charges on debts go to reparations. It provided for a sliding scale of payments starting at a billion gold marks and rising to two and a half times that sum in 1928, the payments to be met from railway bonds, industrial debentures, and taxation. It provided that Germany's creditors have a part in her improvement through an index of her prosperity which was based on population, trade, budget expenditure, railway traffic, and consumption of tobacco, etc. It provided also for a foreign loan to Germany of four-fifths of a billion gold marks and placed the responsibility of converting reparations payments into the necessary foreign moneys upon the Allies with the requirement that transfers be made only when the export balance was enough to prevent the undermining of the stability of the German mark.

On March 13, 1930, President Von Hindenburg agreed to the Young Plan. The plan set a reparation limit, eliminated the prosperity index, removed foreign control of the German fiscal situation except for the railroad bonds, and provided that postponement of payment, railway bonds excluded from deferment, should not exceed two years. Reparation payments were expected to end in the German fiscal year of 1987-1988. Payments, in general, were to increase until 1965-1966 after which a decrease would occur. One authority estimated that the German reparations would average \$488,000,000 a year, only \$157,000,000 of which was unconditional.

In July, 1932, nevertheless, a new agreement negotiated at

Lausanne superseded the Young Plan. It provided that bonds on a present-value basis of \$714,000,000 replace the Young annuities then worth about \$9,000,000,000 estimated on a 5.5 per cent basis. Under the Lausanne agreement two bond issues aggregating 3,000,000,000 reichsmarks with interest at five per cent and an amortization charge of one per cent were to be handled through the Bank for International Settlements at Basle. That institution was to determine the dates of issue and other terms subject to two restrictions, namely, that no issue be made for three years and that no bonds be sold at a greater discount than ten per cent. The two limitations prevent the bond-issues from being burdensome to Germany and have, possibly, brought to an honorable settlement the thorny problem of reparations.⁵

From the time the United States entered the war until the armistice was signed she loaned the allied nations about \$7,000,000,000 and after that date about \$2,500,000,000, making, with \$700,000,000 worth of credits for war supplies, a total of about \$10,200,000,000. Accrued interest of approximately \$1,700,000,000 lifted the grand total to about \$12,000,000,000.

When the United States did not take kindly to the mutual cancellation of debts, England heroically undertook a settlement at once of her obligation of about \$4,500,000,000. In January, 1923, she agreed to pay all her debts to us within a period of sixty-two years starting with twenty-three millions in that year and rising to \$175,000,000 by 1984. Interest was to be paid for the first ten years at the rate of three per cent and thereafter at the rate of three and a half per cent.

With Belgium in 1926 the United States made a distinction between the pre- and post-armistice debt, the former of about \$172,000,000 being exempt from interest and the latter of about \$246,000,000 being subject to three per cent for the first decade and three and a half thereafter until 1987. For the first five years Italy agreed to pay the United States \$5,000,000 annually on both principal and interest and beginning with 1930 interest rising gradually from one-eighth of one per cent to two per cent by 1980, the average being less than one per cent on about \$2,000,000,000. In 1928, though not ratified

⁵ See *The National City Bank of New York Letter*, August, 1932, pp. 116-121.

until 1929, France agreed to pay the principal of her debt to the United States, funded at \$4,025,000,000, within sixty-two years, interest after the first five years with the rate gradually rising from one per cent to three and a half. Funding agreements were likewise made with the other debtors, recognition of bargaining ability and capacity to pay being taken into consideration at least with regard to the interest rate.

Every debt-funding agreement, however, according to Clark M. Eichelberger, left the principal intact. The nations were to pay about \$12,000,000,000 of principal and \$10,000,000,000 interest over a period of sixty-two years, the scale of payments gradually increasing to a peak but averaging about \$350,000,000 a year. The original debt carried interest at five per cent, but this was reduced to 3.3 per cent for Great Britain and less than one per cent for Italy, or an average of approximately two per cent for the fifteen debtor nations.

Because of the recent depression President Herbert Hoover, in June, 1931, suggested a twelve months' moratorium on war debt payments provided the former allied governments would grant Germany, then threatened with a complete financial collapse, a moratorium on reparations. Great Britain and Italy readily and France rather reluctantly accepted the proposition. Premier Laval of France and President Hoover of the United States issued a joint communication declaring that some additional arrangement in connection with the war debt payments during the period of depression might be necessary and that such a movement should be initiated by the European nations.

Acting upon this suggestion the European powers concerned met at Lausanne in July, 1932, to negotiate another settlement of the reparations problem. Reparations as such were abolished, Germany agreeing to pay about \$714,000,000 to a European reconstruction fund. At the same time the British, French, and Italian representatives entered a "gentleman's agreement" that their nations would ratify the abolition of reparations only when a general agreement relative to war debts had been reached. Believing that the question, if raised before the election, would embarrass the Hoover administration, England and France did not send official notes

until November 10. The president opposed cancellation and also the suspension of the payments due December 15.

Secretary of State Stimson addressed replies to England and France intimating that the debtors would be in a better position to ask reexamination after the December payments. Those replies were delivered on November 23 and were answered a week later. England contended that the debts were a war abnormality whose adjustment was necessary before world recovery could occur. The debts, England argued, were goods, not money, and had "enormously augmented the volume of the exports of the lending countries." A heavy drainage of gold from the borrowing nations had upset, consequently, the world's monetary balance, and had forced Great Britain off the gold standard. Such a result was due to the fact that the United States would not accept goods, but insisted upon money payments. England argued that regardless of how generous a settlement the United States gave she "would be repaid again and again by the contribution which it would make to world revival." The French note argued that readjustment was "to be the normal equitable and necessary sequel" of the Hoover moratorium of 1931 and quoted the Hoover-Laval communication and the report of the committee of experts which met at Basle. It also argued that payment would, because of the difficulties of exchange, create "further chaos and poverty throughout the world."

On December 8 Secretary Stimson sent a second note to England. In this note the United States agreed to a reexamination, but not to cancellation, of debts, and suggested the close relationship between debt payments and disarmament. Secretary Stimson urged that only one-third of the war loans, not all, as the British note had implied, were for destructive purposes. A somewhat similar note was sent to France, but Secretary Stimson held that France actually had the gold to make the payment.

Great Britain agreed to pay her installment of \$95,550,000 with the stipulation that the money thus paid must be considered as principal to apply on any new settlement that might be negotiated. Despite the insistence that the installment must be paid without stipulations England adhered to her

reservation, but made the payment on December 15. Italy paid without protest her installment of \$1,245,437; Czechoslovakia, Finland, Latvia, and Lithuania also made their payments, which ranged from \$1,500,000 to \$92,386.

Premier Herriot of France, though he admitted that the United States was unjust in asking payment after President Hoover had initiated the moratorium of 1931, eloquently urged the maintenance of French credit. The French Chamber, nevertheless, refused to pay the \$19,261,432 due on December 15, thus overthrowing the Herriot government. Other nations which failed to pay were: Belgium, Estonia, Greece, Hungary, and Poland with combined installments less than half those of France.⁶

The Great Depression.—Change is a characteristic of the twentieth-century world. Especially marked have been the alterations since 1913. Concerning the influence of the World War Professor J. B. Condliffe writes:

It is not too much to say that the war threw the economic world off its pre-war centre of gravity, and, in doing so, liberated new forces which are not yet easy to appreciate either in regard to their power for change or in regard to the direction where they will ultimately lead...⁷

The World War injured agriculture and manufactures, except war supplies, prostrated commerce, ruined many currencies, increased the cost of living, crowded women into industry, led to all kinds of commercial restrictions, and by hastening the mechanization of agriculture and industry led to unemployment and overproduction of certain specific articles, making inevitable the Great Depression of 1929 to 1935, a longer,

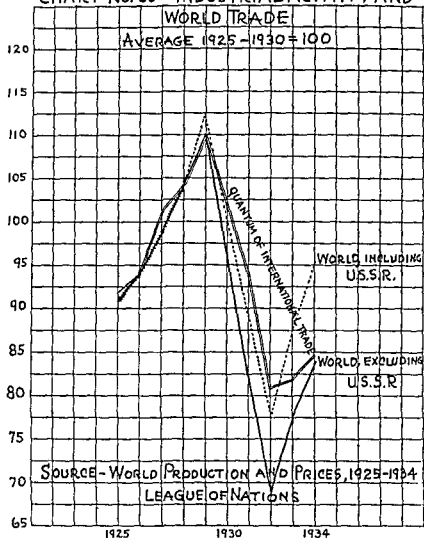
⁶ See *World Economic Survey*, 1932-1933, p. 261. The following table shows the full amount due and payments made in June, 1933, prior to complete default save for Finland:

	DUE	PAYMENTS
United Kingdom	\$75,950,000	\$10,000,000
Italy	13,545,437	1,000,000
Czechoslovakia	1,500,000	180,000
Finland	148,592	148,592
Latvia	119,609	6,000
Rumania	1,000,000	29,100
France	40,738,567	
Belgium	6,325,000	
Poland	2,653,362	
Estonia	228,182	
Hungary	32,025	
Lithuania	123,535	
Yugoslavia	275,000	
Greece	150,000	

⁷ *World Economic Survey*, 1931-1932, p. 11.

severer, and more general catastrophe than the world, often sick temporarily in the nineteenth century, had ever experienced.

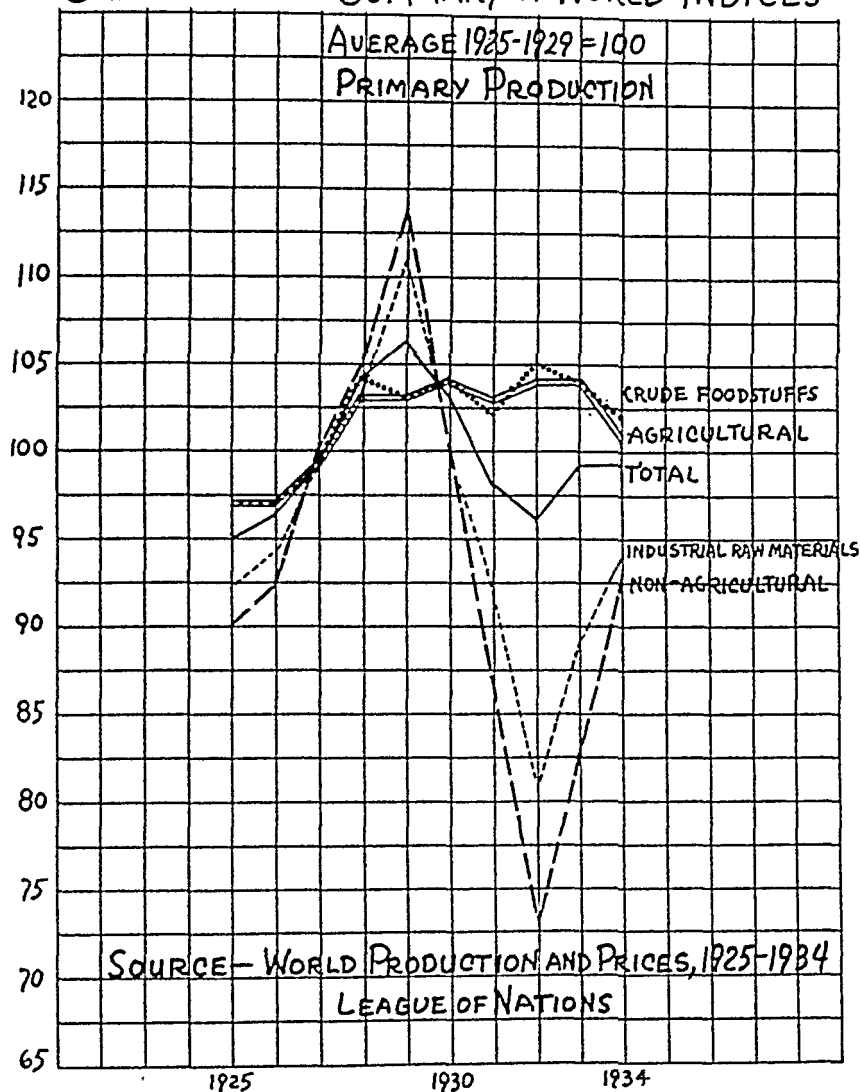
CHART No. 65 - INDUSTRIAL ACTIVITY AND



The depression had been preceded by a remarkable expansion. Between 1925 and 1929 the world production of food-stuffs increased about five per cent, or approximately the

same as the population. During the same period the production of raw material rose twenty-one per cent, most of the increase being in non-agricultural materials. Of course,

CHART No. 66-SUMMARY OF WORLD INDICES

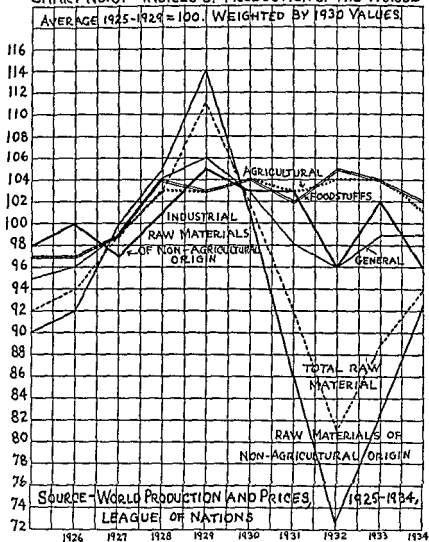


marked inequalities in the rate of expansion for different industries increased the danger.

The depression was delayed somewhat in certain countries,

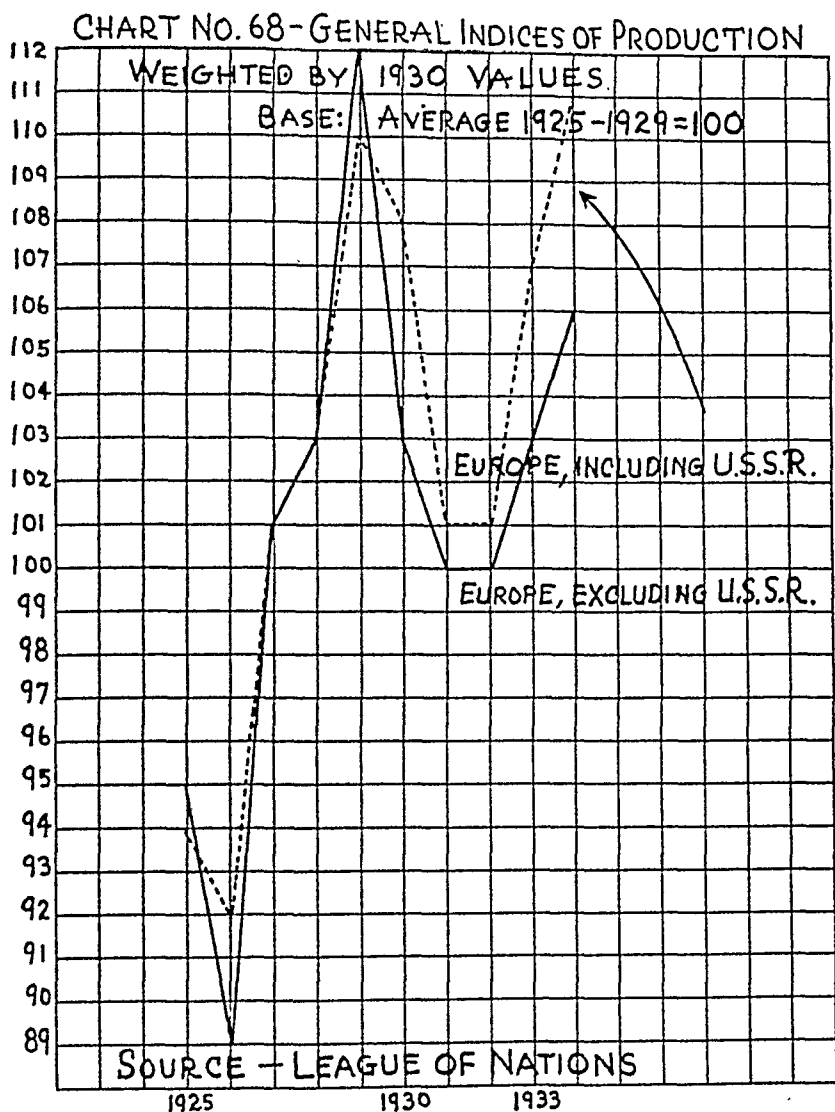
but by 1932 it afflicted severely virtually every part of the world, the old industrial regions to a hitherto unknown degree. The slump was accentuated in severity because it was added

CHART No.67- INDICES OF PRODUCTION OF THE WORLD



to an agricultural crisis. Despite the decreased demand for agricultural materials the production of those commodities declined only two per cent in the first three years of depression.

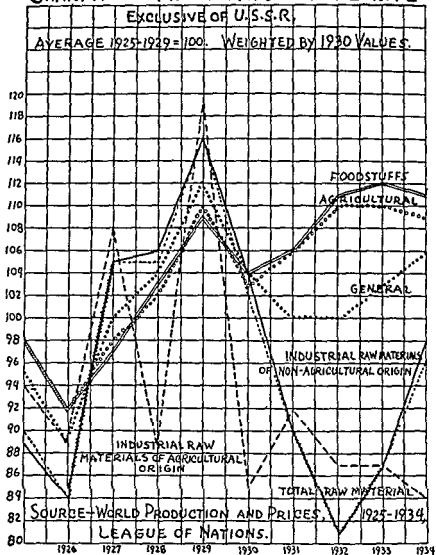
The crisis first affected non-European agricultural exporters. In industrial production central Europe suffered first. From 1929 to 1932 the United States, Canada, Poland, Czechoslo-



vakia, Germany, Austria, Hungary, Belgium, and France experienced the heaviest losses. The United Kingdom, the Scandinavian countries, Japan, and Chile suffered less severely.

During this period raw material production declined twenty-seven per cent and industrial activity thirty-one per cent. Producers' goods fell more rapidly than consumers' goods,

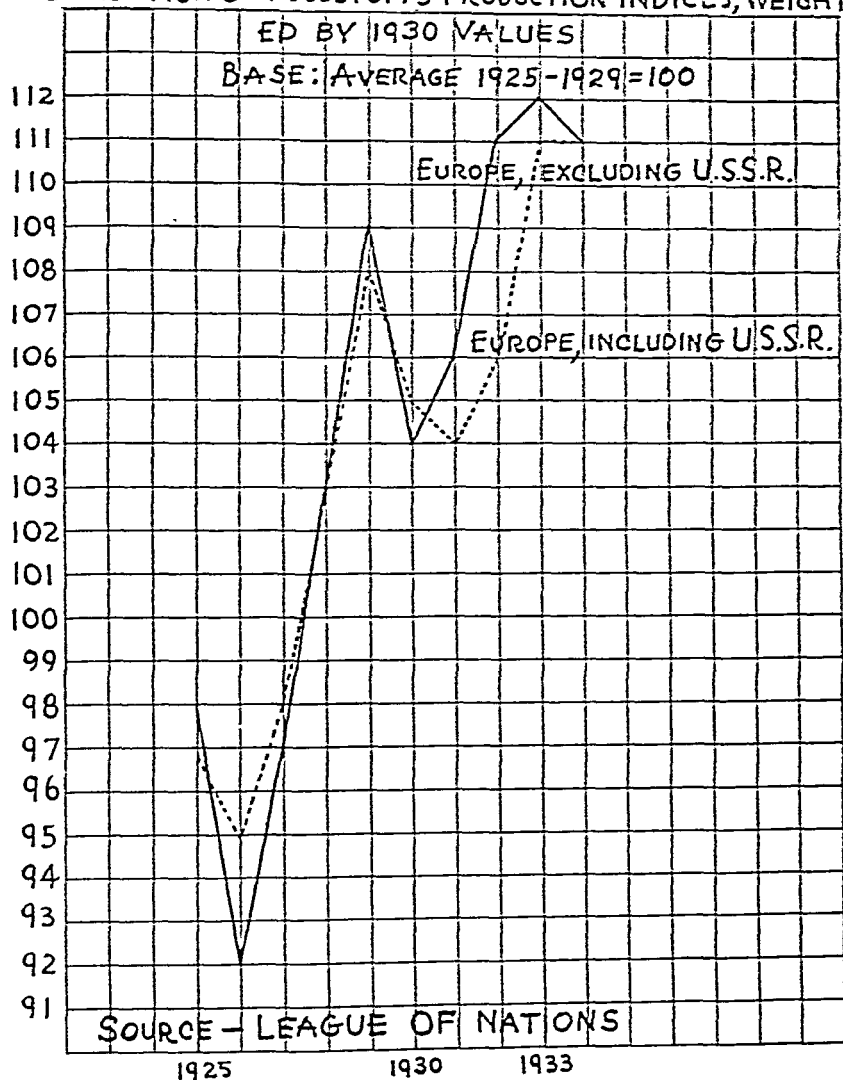
CHART No. 69- INDICES OF PRODUCTION OF EUROPE



dropping to two-thirds of the 1925-1929 base in 1932 in raw materials for producers' goods. Iron and steel, mechanical engineering, ship-building, motor-car, timber, and building

industries experienced heavy losses. Leather, boots and shoes, rubber goods, paper, and textiles suffered smaller losses. Trade in foodstuffs increased until late in 1931, but in the first three

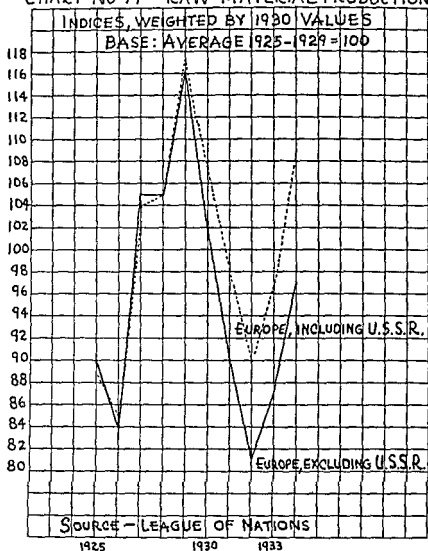
CHART NO. 70 - FOODSTUFFS PRODUCTION INDICES, WEIGHT-



years of the depression world trade in primary products and manufactured articles fell about one-fourth in quantum, in manufactured goods approximately two-fifths. Gold prices

fell rapidly from the autumn of 1929 to the middle of 1932. The decline was the most marked in the gold standard countries. Agriculturists in 1932 were especially injured because the goods which they sold fell far more sharply than the goods

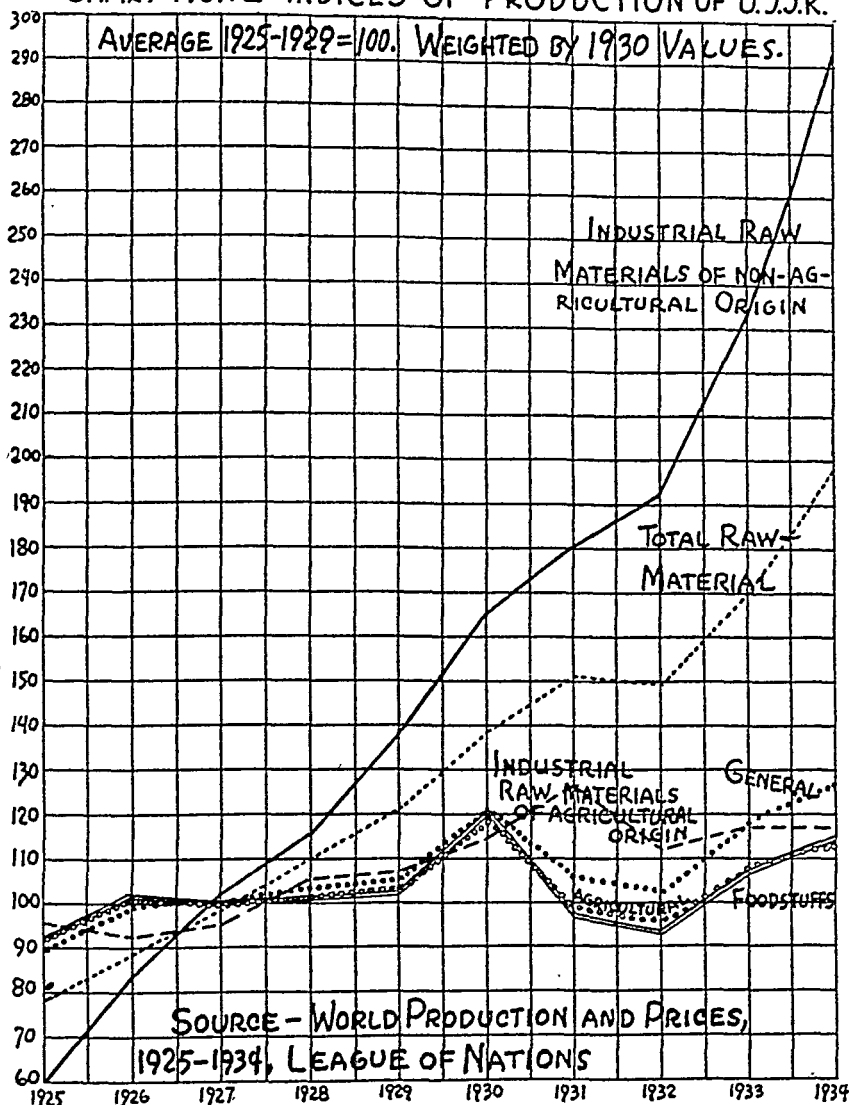
CHART NO 71 - RAW-MATERIAL PRODUCTION



they bought. Industrial countries, by tariffs, import quotas, and the like, maintained the price of domestic products well above the level of world prices, thus intensifying price declines

on world markets. "Cartellised" prices revealed little fluctuation, but free prices often continued to fall during 1932. Early in 1933, despite the slight upward movement, gold prices for

CHART No.72-INDICES OF PRODUCTION OF U.S.S.R.

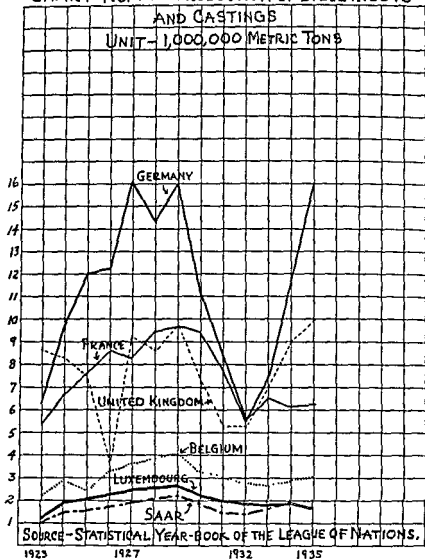


most textiles were seventy to eighty per cent below those at the beginning of 1929; grains and other foodstuffs, fifty to seventy per cent lower; animal foodstuffs, forty to sixty per

cent lower; copper, seventy per cent lower; and most non-ferrous metals, fifty to fifty-five per cent lower.⁸

Of course, signs of recovery appeared at varying times in

CHART NO. 73—PRODUCTION OF STEEL INGOTS



different countries and in different industries. Japan and Chile even showed increases in 1932 and the textiles revealed

⁸ See *World Production and Prices* (The League of Nations, Geneva, 1933) pp. 9-14 and the *Monthly Bulletin of Statistics*, April, 1934, Vol. XV, No. 4, pp. 154, 155.

marked gains in the last half of 1932, rayon setting a record.⁹ Toward the close of October, 1932, gold prices turned upward, only to fall in March, 1933, to the lowest point of the depression in the gold standard countries.¹⁰ Since then increases, partially due to the monetary policy of the United States, have occurred. In 1933 the production of raw materials, exclusive of agricultural products, was twelve per cent higher than the low level of 1932 and inclusive of them nine per cent higher. Industrial activity in the same period increased twelve per cent. The big accumulation of stocks of raw materials, caused by the greater relative decline of industrial activity than of raw materials activity, are being decreased by the substantial recovery in industrial activity. Even in 1933, however, the index numbers of raw materials production and industrial activity were substantially below the levels of 1925 and twenty-one and twenty-three per cent respectively under the 1929-levels.

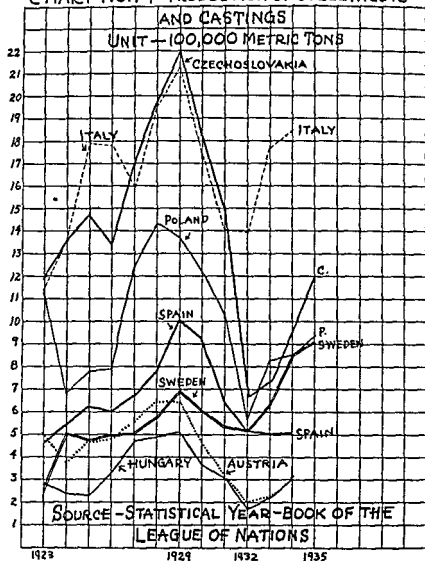
Within the last three years food supplies have been reorganized, the demand for raw materials has revived, commodity stocks have been moved, and various schemes have been attempted to restrict the production of important commodities, including tin, copper, zinc, nickel, aluminum, silver, wheat, rubber, cotton, silk, coffee, tea, and sugar. Such restrictions are often imposed by cartels, but at times by nations. A revival in investment industries also has occurred. In the gold standard countries the revival was chiefly in consumption goods, but in the other countries and Germany it was largely in investment goods. A substantial boom likewise has occurred in building activities. In the countries where capital had accumulated, notably England, Holland, France, Switzerland, and Belgium, building activities had continued fairly well even during the depression, but in the borrowing countries and the United States construction work had fallen to very low levels. Since the beginning of 1933, however, in many of the borrowing countries including Australia, New Zealand, South Africa, Finland, and several South American

⁹ World decline was lessened by Russia's industrial growth and world recovery was accelerated by the same factor. Between 1925 and 1929 Russia's index number for industrial development doubled. The same thing occurred again between 1928 and 1932. The index in 1933 stood at 253 as compared with 100 in 1928 and 50 in 1925.

¹⁰ In many cases wholesale prices were forty per cent below the level of 1929.

countries, a marked recovery has occurred. The United Kingdom, the Scandinavian countries, Germany, Austria, Hungary, Italy, and Poland also witnessed, at least temporarily,

CHART NO. 74-PRODUCTION OF STEEL INGOTS



increases more than sufficient to offset losses, chiefly temporary, in Belgium, France, Holland, Switzerland, the United States, and Czechoslovakia.

PRODUCTION OF INVESTMENT AND CONSUMPTION GOODS IN SPECIFIED COUNTRIES

Base: Average 1925-1929—100

Country	Quarter of Lowest Production	Lowest Indices		Indices First Quarter 1934	
		Invest- ment Goods	Consump- tion Goods	Invest- ment Goods	Consump- tion Goods
France	II 1932	70	71	76	95
Germany	III 1932	40	83	65	101
Netherlands	III 1932	51	76	64	110
Poland	I 1933	49	56	59	80
Sweden	III 1932	73	93	103	117
United Kingdom	III 1932	72	85	97	98
United States ..	III 1932	24	73 ^A	49	89 11

Of course, fluctuations in economic well-being occur, but since 1933 we have been climbing out of the Valley of Depression toward the Plateau of Stability. Despite the withdrawal of Germany and Italy more and more "from the semblance of normal economic relations with the rest of the world and, above all, the ever-increasing threat of war," the economic conditions of the world improved materially in 1935. Industrial activity by the end of the year had practically regained the level of 1928. Trade increased slightly, excessive commodity stocks continued to fall, commodity prices remained firm during the first half of the year and advanced materially in the third quarter, and exchange rates fluctuated little after the first quarter.

Naturally, some fluctuations in economic well-being occur in the different countries. The foreign trade of the seventeen leading agricultural and raw materials countries¹² had ceased to decline by 1933 and actually increased in 1935, but the foreign trade of the eleven industrial countries,¹³ particularly that of the gold bloc, continued to decline in 1935.¹⁴ During the first half of 1935 industry in France fell to the lowest level of

¹¹ See *World Economic Survey*, 1933-1934, p. 127. A Second quarter, 1932.

¹² Those countries are Argentine, Australia, Brazil, British Malaya, Bulgaria, Canada, China, Denmark, Dutch East Indies, Hungary, India, New Zealand, Poland, Rumania, Spain, Union of South Africa, and Yugoslavia.

¹³ The industrial countries are Austria, Belgium, Czechoslovakia, France, Germany, Italy, Netherlands, Sweden, Switzerland, United Kingdom, and the United States.

¹⁴ According to the quarterly index of the physical volume of world trade, based on total value and the indices of export and import prices in the leading countries, as computed by the League of Nations, the physical volume of international trade ceased to decline in 1932 and has since moved steadily but moderately upward. Apparently from the close of 1932 to early 1935 the decline in world trade represented a decline in prices rather than a decline in volume of trade.

the depression, prices declined, and exports fell. Suggestions of improvement occurred in the last half of the year. Industrial activity even revealed some advances and exports stopped their downward movement. Yet that improvement may be due well-nigh entirely to heavy government expenditures. When Belgium devalued her currency about twenty-eight per cent at the close of March, 1935, she stimulated her own industry, but injured her neighbor, Holland, who clings to the gold standard. Switzerland, also in the gold bloc, is encountering troubles. Germany and Italy, in part because of their war-like policies, are in difficulty. Russia's commerce declines because her self-sufficiency, notably in industrial products, continues to increase. The United Kingdom has shown the greatest progress of the important industrial nations. Her unemployment figures at the end of the year were the lowest since June, 1930. Her building boom continued and her exports and imports rose slowly. Her general business during September-November, 1935, was seven per cent above 1928 and the most active of the post-war period.¹⁵

The World Economic Conference.—On June 12, 1933, in the Geological Museum at South Kensington, London, convened the representatives of sixty-six nations in the World Monetary and Economic Conference. A more inauspicious time for a conference to settle world problems could scarcely be imagined, for the United States had just gone off the gold standard and rabid nationalism was everywhere manifest. The Honorable George Peel visualized the world problems as six, only two of which could be tackled by the Conference:

1. Restrictions on world trade.
2. Disarmament.
3. War debts and reparations.
4. Monetary problems.
5. Balancing of budgets.
6. Coordination of the productive energies of the world.¹⁶

¹⁵ See article, "World Recovery Progresses Despite All Obstacles, Industry Up to 1929 Level" by Winthrop W. Case in the *Annalist*, January 17, 1936, Vol. 47, pp. 85-87 and 139.

¹⁶ See the *Contemporary Review*, August, 1933, Vol. 144, pp. 129-137

The World Economic Conference at Geneva in 1927 in a report unanimously adopted by the representatives of fifty nations declared that "the time has come to put an end to the increase in tariffs, and move in the opposite direction." Momentarily in 1928 and 1929 the upward movement of European tariffs was checked, but the Hawley-Smoot Tariff of the United States smothered that illusion and incited retaliation. The Crisis of 1931, moreover, administered a mortal wound to the policy of 1927 and stimulated trade restrictions of every imaginable sort. Cordell Hull, head of the United States delegation, believed that world recovery depended primarily upon the lowering of tariff barriers.

The Experts' Preparatory Report visualized two alternative plans relative to the tariff, namely, a reduction by percentages and a lowering to a uniform level. The United States favored a reduction by percentages, ten per cent for all nations. That proposal at once caused difficulty because the United States has one of the highest tariffs in the world and Great Britain has one of the lowest tariffs. The ten per cent reduction would leave the position of the United States virtually unchanged, but would reduce sharply the tariffs of Great Britain and the other relatively low tariff countries. Naturally, therefore, the low tariff countries favored the plan of lowering all duties to a uniform level, which meant little change for them but marked reductions for the high tariff countries. No universal arrangement being feasible, proposals were made for the formation of "low tariff clubs."

A second stumbling block for the Conference was the disarmament problem, economic at least in its incidence. On the eve of the London assembly the Disarmament Conference announced that there were "fifteen or sixteen major points upon which no agreement has been reached at Geneva." Five days before the World Conference met France, Germany, Italy, and the United Kingdom announced their agreement to pursue in Europe "over many years to come" a peaceful policy. Yet because those countries were signatories to various agreements denouncing war and were members of the Council of

the League of Nations, their announcement had little soothing power.¹⁷

A third factor threatening the success of the World Conference was the debt question. The United States insisted that her creditors meet their obligations to her in full. In that insistence few Europeans and not all Americans could see justice. General Smuts of the Union of South Africa, for example, in his first public proclamation, seemed to take the view that the chief trouble with the world was the inclination of the United States to collect all debts due to it.

The fourth stumbling block, the most important of all, was the monetary problem. The Basle report had stated: "A tariff crisis has been added to the monetary crisis." Mr. Charles Rist of the Bank of France, supported by numerous other representatives from the gold block countries, at London insisted likewise that the world's "instant central malady" was international currency fluctuations. "Security," "Gold," "Gold," "Security," "Stabilization" were their constant cries. Why was the monetary question rightly considered the most important problem? Many countries obligated to pay interest on loans and war debts had no exportable gold available. Naturally they attempted to reduce their imports and to increase their exports. Manifold restrictions, which will last until gold is obtained, have developed. There can, therefore, be little change in tariff and trade restrictions until the monetary problem is settled.

On May 16, President Franklin D. Roosevelt had declared to the fifty-four nations then represented in the Disarmament Conference at Geneva: "The Conference must establish order out of the present chaos by stabilization of currencies, by freeing the flow of world trade, and by international action to raise price levels." Sympathetic to that measure the delegates to the World Economic Conference heard with amazement and rising indignation Roosevelt's brusque and emphatic

¹⁷ The denunciation of war continues. And so do the preparations for war. In 1933 Japan and Germany even withdrew from the League. Italy threatened to follow their example and in 1935 started the exploitation of Ethiopia, thus promoting general preparations for war. On March 7, 1936, Germany reoccupied the demilitarized Rhine district, thus breaking the last vestiges of the unjust treaty of Versailles. France rushed troops to her border forts and other nations gave her assurance of aid. The estimated war expenditures of \$6,000,000,000 for 1935 may look small when compared with the actual expenditures of 1936.

message of July 3 condemning "the specious fallacy of achieving a temporary and probably an artificial stability in foreign exchange."¹⁸

The London Conference was split by the new American attitude, many delegates urging immediate adjournment. France headed the gold group, which included Belgium, Germany, Italy, and Switzerland, in fact, all of Continental Europe except Scandinavia. The gold countries could not admit increased prices. French industry and agriculture, for example, were not excessively indebted and French citizens had already lost four-fifths of their savings through the devaluation of the franc. England, at first acting as a mediator between the gold and non-gold groups, at last took the side of the United States and Scandinavia, being forced to that position by the influence of her colonies, especially Canada.

A fifth economic problem was the question of balanced budgets. President Roosevelt on July 3 made a statesman-like suggestion that only "when the world works out concerted policies in the majority of nations to produce balanced budgets and living within their means" could "a better distribution of the world's gold and silver supply to act as a reserve base of national currencies" be discussed. Unfortunately beset on all sides by home pressure and argument, the Conference disregarded balanced budgets for sensational subjects.

A sixth problem related to the coordination of world productive agencies. Discussions relative to the restriction of output for wheat, silver, sugar, coffee, cocoa, wine, tin, timber, rubber, and coal began. In the opinion of many people the conclusion of silver, wheat, and rubber agreements was sufficient to justify the conference.¹⁹

The conclusion of the silver agreement, effective for four years from January 1, 1934, was due primarily to the untiring efforts of Senator Key Pittman of Nevada. The agreement

¹⁸ On January 31, 1934, President Roosevelt reduced the gold weight of the dollar from 25.8 grains to 15 5/21 grains, thus making the gold value of the dollar 59.08 per cent of the old value. He also set the price of gold at \$35.00 an ounce. The United States nationalized silver in August, 1934. All silver not needed in industry was to be turned over to the government at 50.1 cents an ounce within three months. Silver certificates of about \$20,000,000 at \$1.29 an ounce were to be issued against 62,000,000 ounces costing about \$46,000,000.

¹⁹ See the *Contemporary Review*, August, 1933, Vol. 144, pp. 129-137 and *Current History*, September, 1933, Vol. XXXVIII, pp. 649-662 for H. B. Lees-Smith's "The Clash of National Politics" and William Hard's "An International Comedy." See also the *Commercial and Financial Chronicle*, July 29, 1933, Vol. 137, p. 739.

was between the three chief silver-holding countries,—China, India, and Spain,—on the one hand and the principal silver-producing countries,—the United States, Canada, Mexico, Peru, and Australia,—on the other hand. China agreed to sell no silver from demonetized coins, India agreed to limit her sales to thirty-five million ounces annually, and Spain agreed to limit her sales to five million ounces yearly. The silver-producing countries agreed to purchase or to withdraw from the market thirty-five million ounces of silver yearly for each of the four calendar years.

Said the *Literary Digest* of September 9, 1933: "Stacked up in two-bushel bags, upon a base one acre in area, the world's surplus wheat would form a mountain or tower extending three and a half miles upward into the sky." In an effort to lessen the surplus and to help the farmers, a movement stimulated at London, twenty-two nations signed at London, August 25, 1933, the Wheat Pact. Exporting countries agreed to lower their wheat exports fifteen per cent below their normal export surplus. That surplus was to be fixed by subtracting the usual domestic requirements from the average output for the sown acreage 1931-1933. Any difference between the import demand for wheat in 1934-1935 and the lowered quotas, including those of Russia and the Danube, was to be filled from the excessive stocks of Canada and the United States. The wheat-importing countries,—Austria, Belgium, France, Germany, Greece, Great Britain and Northern Ireland, Irish Free State, Italy, Poland, Spain, Sweden, and Switzerland,—pledged themselves:

1. To refrain from encouraging increased wheat extension or production.
2. To encourage domestic wheat consumption through the removal of milling quotas which have lessened the quality of breadstuffs.
3. To lower tariff duties, though not uniformly or excessively, when the price of wheat reached 63.02 cents a bushel in gold.
4. To modify the quotas and the various quantitative re-

strictions, if not in 1933-1934 certainly in 1934-1935, if prices meanwhile definitely increase.²⁰

About ten months after the London Conference a rubber agreement was reached, a possible blessing for producers. Late in April, 1934, representatives of Malaya, the Dutch East Indies, Ceylon, India, Burma, North Borneo, Sarawak, and Siam meeting in London signed an international five-year plan to regulate and to control rubber production. The decrease in production was set at ten per cent for July, twenty per cent for August, and thirty per cent beginning with September and lasting "until the world stock" was reduced to a point affording a fair price. The plan set the maximum export quota at 1,019,000 tons in 1934, well above the approximate 850,000 tons of 1933, and provided for a gradual increase to 1,250,000 tons in 1938.²¹

If the silver, wheat, and rubber agreements raise prices, other agreements will come. The differences aired at the London Conference will have cleared the atmosphere to some extent. The cooperation there stimulated may in the long run bear increasing fruit. And so the author believes that out of that disappointing Conference some blessings already have come and more blessings will flow.

SELECTED REFERENCES

Bennes, F. L. *Europe Since 1914* (New York, F. S. Crofts and Company, 1934) Chapters VII-XI.

Birck, L. V. *The Scourge of Europe* (London, George Routledge and Sons, 1926) Chapters XIX-XXI.

Bogart, E. L. *The Direct and Indirect Costs of the Great World War* (New York, The Carnegie Endowment for International Peace, 1919).

Buell, R. L. *International Relations* (New York, Henry Holt and Company, 1925) Chapters XXI-XXIX.

De Madariaga, Salvador. *Disarmament* (New York, Coward-McCann, Inc., 1929) Part III, Chapters I, II, IX, and X.

Jones, Robert and Sherman, S. S. *The League of Nations from Idea to Reality* (London, Sir Isaac Pitman and Sons, Ltd., 1927) Chapters VII-XII.

Moulton, H. G. and Pasvolsky, Leo. *War Debts and World Prosperity* (New York, The Brookings Institution, 1932) Chapters I-III and XVII-XX.

Shotwell, J. T. *War as an Instrument of National Policy* (New York, Harcourt, Brace and Company, 1929) Chapters I-IV, XX, XXI, and XXIII.

²⁰ See the *Literary Digest*, September 9, 1933, Vol. 116, p. 8, the *Annalist*, September 1, 1933, Vol. 42, No. 1076, pp. 277 and 302, and *Supplementary Report on the Work of the League since the Thirteenth Session of the Assembly* (Geneva, September, 1933) pp. 39, 40.

²¹ See the *Wall Street Journal*, May 1, 1934.

INDEX

- Abbe, Professor, and fine glass, 449.
 Abbot, Edith, author, 360.
 Abelard, and the University of Paris, 131.
 Abram, Annie, author, 151.
 Absalom, Bishop of Lund, and Copenhagen, 199.
 Acciajuoli, Florentine bankers, 184.
 Acerbi, Joseph, quoted on the Swedes, 214, 215.
 Achard, Frantz, and sugar beets, 429.
 Actors, in ancient trade, 61.
 Adam, of Bremen, quoted on Sweden, 100, 200.
 Adams, J. Q., quoted on German manufactures, 442, 443.
 Addison, Joseph, prose writer, 232.
 Addison, Julia, cited, 167.
Aeneid, cited on iron weapons, 49.
 Aeronautics, discussed, 560-563.
 Agrippa, early geographer, 9.
 Agriculture: in the ancient world, domestication of plants, 3; soil, 29, 30; climate, 30, 31; irrigation, 32, 33; early methods, 33, 34; improvements, 34-37; size of farms, 37, 38; crops, 38-40; animal industries, 40, 41; in the Middle Ages: early Germanic, 81-84; Alpine, 84; Slavic, 84; Celtic, 84, 85; origin of the manor, 85, 86; lord of the manor, 85, 86; manorial classes, 89-92; manorial methods, 92, 93; changes in the manor, 93-95; decline of the manor, 95, 96; in southeastern Europe, 96, 97; in Italy, 97; in Spain, 97-99; in Flanders, 99; in Switzerland, 99, 100; in Scandinavia, 100; in Russia, 100, 101; influence of Church on, 120-122; effect of Crusades on, 132, 133; from 1500 to 1800: condition of peasants in the Balkans, 255, 256; Italian peasants, 256, 257; Iberian peasants, 257, 258; French peasants, 258-261; English peasants, 261-263; peasants in northwestern Europe, 263, 264; peasants in central Europe, 264-268; Polish and Russian peasants, 268-270; beginnings of agricultural revolution, 270-273; agricultural improvements in England, 273-278; since 1800: reclamation of land, 361, 362; improved machinery, 362-364; use of fertilizers, 364-366; education, 366-369; credit, 369-371; cooperation, 371-373; government services to, 373-376; agricultural policy, 376-378; enclosures, 378-381; size of farms, 381-383; workers in England and Ireland, 385, 386; in other west European countries, 386-388; farm workers in southern Europe, 388, 389; Russian peasants, 389-394; in east central Europe and the Balkans, 394-397; in Poland and the east Baltic and northern countries, 397-401; in southern Europe, 401-403; good utilization of resources, 403-405; in England and France, 405-408; in middle Europe, 408, 409; in Russia, 409-413.
 Alaric, joined by slaves, 26.
 Albania, people of, 336; conditions in, 394; manufactures of, 461; commerce of, 649; sales methods in, 654.
 Albuquerque, and India, 315.
 Alcabala, Spanish tax, 316, 317, 610.
 Alcibiades, and small farms, 37.
 Alcidas, questions slavery, 21.
 Alexander II, of Russia, and serfs, 392.
 Alexander III, attitude toward slavery, 135, 136.
 Alexander VI, bulls of, 297.
 Alexander, R. C., editor, 209.
 Alexander, Thomas, author, 360.
 Alexandria, intellectual center, 8; trade of, 65.
 Alfred, King, quoted on educational conditions, 130.
 Allied Maritime Transport Council, 622.
 Allotments, English, 374, 383.

- Almend, defined, 84.
 Alpine agriculture, 84.
 Alsace Lorraine, resources of, 439, 440, 442.
 Amber, ancient trade in, 75, 76.
American Economic Review, quoted on quotas, 584, cited, 605.
 Amusements, in towns of the Middle Ages, 108-110, of the upper classes, 114-116 from 1500 to 1800, in Vienna, 211, 212, in Italy, 213 in England, 250, 251; in Spain, 251.
 Ancient history, importance of, 6, 7.
 Andronicus, translator of *Odyssey*, 9.
 Angell, J. W., author, 467, 657.
 Animals, domestication of, 3, in the ancient world, 40, 41; in manorial system, 93, in Spain, 99, in Switzerland, 100, improvement of in England, 276, 277. *See* agriculture in various countries.
Annalist, cited, 680, 685.
Annals of The American Academy of Political and Social Sciences, cited, 602, 604.
 Anti Corn Law League, 571.
 Anti dumping duties, 569.
 Antwerp, importance of, 303, 304.
 Appelles, Greek painter, 58.
 Apollodorus, early painter, 58.
 Apprentices, in gild system, 61; Statute of, 281, 282.
 Aquinas, St. Thomas, and just price, 124, 125.
 Arch, Joseph, and agricultural labor, 385.
Archaeological Journal, quoted or cited, 108, 116.
 Archenholz, D., quoted on English prisons, 208.
 Archimedes, scientist, 8.
 Architecture, in ancient world, 54-57 in Middle Ages, 132.
 Aristotle, Greek philosopher, 9; condemns slavery, 21; cited on cows, 41 mentions silk, 46.
 Arkwright, Richard, and textile machinery, 418.
 Armenia, soil of, 29, climate, 31; hospitality of people, 31; irrigation in, 32; boats of, 64.
 Arrian, Flavius, ancient author, 9.
 Artom, Eugenio, quoted on Belgium, 438.
 Ashley, Lord, and labor legislation, 470, 471, 473, 474.
 Ashley, W. J., cited, 92, 95, 101, 105, 124, 131, 152, 160, 173, 174, 175, 253, 584.
 Asia Minor, soil, 1, 20, climate, 31; irrigation, 33; sheep and goats of, 41; architecture of, 56; coinage of, 56; markets of, 70.
 Assiento, Treaty of, 210, 317, 318.
 Assignats, French paper money, 308, 309.
 Assize, discussed, 173.
 Assyria, religion of, 10; treatment of slaves, 24, 25; irrigation in, 32; animal industries of, 40, 41; manufactures of, 44, 45, 49, 51; boats of, 64; coinage of, 66; domestic trade of, 71; foreign trade of, 71.
 Astbury, famous English potter, 289.
 Athens, intellectual center, 9, labor in, 16, wages, 17, 18; treatment of slaves, 25; pottery of, 47, 48; need for food-stuffs, 76.
Atlantic Monthly, cited, 629.
 Attila, followers of, 96.
 Auge-Laribe, Michel, author, 413.
 Augsburg, Peace of, 222.
 Augustus, age of, 9; architecture of, 56, 57, lowers interest rate, 68, 74.
 Austria, and education, 230, 231; manufactures, 291; commerce, 314, 315; peasants, 340, land holdings in, 394; manufactures, 452, 453; labor unions, 507, 508, tariff, 581; commerce, 638, 639.
 Austria-Hungary, emigration from, 359, agriculture, 391; manufactures, 450-452, tariff, 581; commerce, 636, 638.
 Automobiles, development of, 543, 544.
 Azana, Manuel, Spaniard, 529, 530.
 Baboeuf, Francois, early socialist, 511.
 Babylonia, early civilization, 5, 6; education, 8, religion, 10, slavery, 24, 27; animal industries, 40, 41; seals, 50, 51; architecture, 54, 55, boats, 61; coinage, 67; interest, 67; banking, 68, 69; domestic trade, 70; foreign trade, 71.
 Babylonian captivity, of the Church, 219, 220.
 Bacon, Francis, prose writer, 231, 236.
 Bailey, E. H. S., author, 413.
 Bailey, H. S., author, 413.
 Bailiff, manorial officer, 87.
 Bailiff-farming, growth of, 95.
 Bakacs, Bishop, and Hungarian peasants, 265.

- Bakewell, Robert, and animal-breeding, 276, 277.
- Balbus, quoted on the Swiss, 112, 113.
- Balkans, during the Middle Ages, 96, 97; manufactures, 166; commerce, 185, 186; from 1500 to 1800: condition of peasants, 255, 256; manufactures, 286; commerce, 327, 328; since 1800: education, 347, 348; land reclamation, 362; agriculture, 391-397; manufactures, 461, 462; socialism, 528, 529; tariff, 582; commerce, 647-652.
- Balks, defined, 92.
- Ball, John, quoted on English social conditions, 143; executed, 145.
- Balloons, development of, 560, 561.
- Banalite, defined, 261.
- Banks, early, 68, 69; in the Middle Ages, 184, 185; from 1500 to 1800, 302, 303; since 1800, in the various countries, 592-600.
- Barcelona, importance of, 186; tariff convention of, 568.
- Baretti, Joseph, quoted on Italians, 212.
- Barnes, H. E., author, 331.
- Barwell, Anna, translator, 413.
- Bastable, C. F., cited, 608, 611, 659.
- Bastiat, Frederic, on tariff, 575.
- Bata, and shoe manufactures, 454.
- Bate's case, and schools, 229.
- Bayer, Dr., and indigo, 448.
- Beadle, officer of journeymen, 147.
- Beaumanoir, de Philippe, quoted on French peasants, 141.
- Beaumont, Francis, dramatist, 231.
- Beazley, J. D., cited, 48.
- Bebel, August, German socialist, 520, 521.
- Beccaria, di Cesare, on crime, 237, 238.
- Bede, Saint, quoted on labor, 123.
- Belgium, peasants, 339; education, 348; fertilizers, 364, 365; agricultural education, 367, 368; machinery, 429; manufactures, 437, 438; socialism, 527; tariff, 580; banking, 597, 599; commerce, 631, 635; war debts, 664.
- Bell, Alexander Graham, and telephone, 564, 565.
- Bell, Andrew, and schools, 229.
- Benedictines, influence on agriculture, 121; on manufactures, 122, 123.
- Bennes, F. L., author, 509, 534, 685.
- Bennett, Arnold, quoted on Portuguese, 343, 344.
- Benz, Karl, and gasoline cars, 543.
- Bergendal, Kurt, author, 657.
- Berglund, Abraham, author, 566.
- Berlichingen, Gotz von, leader of German peasants, 267.
- Bernstein, Edward, German socialist, 521, 522.
- Berthoud of Couvet, and chronometers, 293.
- Bessemer, Henry, and the steel industry, 421.
- Bethan-Edwards, Miss, editor, 259, 260.
- Bill of exchange, 183, 184.
- Bimetallism, difficulties of, 67, 183; charts on, 308, 587, 588; in various countries, 586-590.
- Birck, L. V., author, 685.
- Bismarck, and social insurance, 482, 483; and socialists, 521; and railroad ownership, 548; and the tariff, 578.
- Bissell, W. B., author, 383.
- Black Death, deadly disease, 138-140.
- Black, Joseph, and chemistry, 235, 236.
- Black, J. D., cited, 371.
- Blackwood's Edinburgh Magazine*, quoted or cited, 337, 344, 447, 541.
- Blake, William, writer, 233.
- Blanc, Louis, French socialist, 513, 514.
- Bland, A. E., editor, 101, 160, 163, 164, 179, 244, 253, 278, 284, 290, 379, 383, 497, 509, 570, 571.
- "Blue book" freight rates, 622.
- Blum, Leon, French premier, 501, 502, 516.
- Boats, in ancient world, 64-66; in Middle Ages, 180; recent development, 554-560.
- Boccaccio, writer, 131.
- Boerhaave, Hermann, and chemistry, 235.
- Bogart, E. L., cited, 660, 685.
- Bohemia, peasants of, 264, 265; manufactures, 291, 292; commerce, 315.
- Boileau, Nicolas, French essayist, 233.
- Boissonnade, P., author, 116, 152.
- Bolsheviks, nature of government, 525-527.
- Boon work, defined, 90.
- Bordars, discussed, 91.
- Bossuet, Jacques, French orator, 233.
- Boswell, James, biographer, 232.
- Boulton, Matthew, and coinage, 307; and Watt, 419.
- Bovate, defined, 92.
- Bowden, Witt, author, 253, 431.
- Bowen, Edwin W., cited, 75.
- Boyle, Robert, and gasses, 235.

- Brahe, Tycho, astronomer, 233.
 Branson, E. C., author, 413.
 Brant, Sebastian, and church, 220.
 Breasted, J. H., cited or quoted, 2, 5, 12, 57, 64, 72.
 Brentano, L., cited, 158, 159.
 Bretigny, Peace of, 144.
 Bridge Brothers, Order of, 127.
 Bridges, in Middle Ages, 177.
 Bridgewater Canal, 329, 330, 537.
 Bright, John, and corn laws, 571.
 Brooke, A de Capell, quoted on Scandinavians, 338.
 Brooks, R., quoted on Italians, 213.
 Brose, H. L., translator, 60.
 Brougham, Lord, quoted on sufferings of the poor, 475.
 Brown, P. A., editor, 101, 160, 163, 164, 179, 244, 253, 278, 284, 290, 379, 383, 497, 509, 570, 571.
 Browne, Thomas, prose writer, 232.
 Browning, Elizabeth B., quoted on child labor, 470.
 Browning, Oscar, cited, 347.
 Brownlow, Lord, and enclosure contest, 379, 380.
 Bruges, importance of in Middle Ages, 188, 193.
 Bucher, Carl, cited, 153, 156, 167, 283.
 Budgets, balanced, considered at London Conference, 683.
 Buehler, A. G., cited, 610.
 Buell, R. L., author, 685.
 Buffon, de Georges, French geologist, 236, 350.
 Bulgaria, peasants in, 1500 to 1800, 255; commerce of, 327; agricultural conditions since 1800, 396; manufactures, 461, 462; dictatorship in, 533, 534, commerce, 649, 650.
 Bullionist policy, 311.
 Bunyan, John, writer, 232.
 Burial practices, early German and Scandinavian, 104.
 Burke, Edmund, writer and statesman, 232.
 Burney, traveller, quoted on Germans, 211, 212.
 Burns, Robert, poet, 232.
 Burris, Eli E., cited, 12.
 Buschor, Ernst, author, 60.
 Butler, A. J., translator, 34.
 Butler, Samuel, writer, 232.
 Buxton, David R., quoted on Russian kulaks, 337.
 Byrne, Muriel, author, 254, 278.
 Cabet, Etienne, French socialist, 511, 512.
 Cable, development of, 564.
 Cabral, Pedro A., and Brazil, 297; and India, 315.
 Cadby, Will and Carine, cited, 636.
 Caesar, Julius, Roman writer, 9; takes slaves, 21; wears silk, 46.
 Caird, James, quoted on farm machinery, 362, 363.
 Cairo, captured by Turks, 313.
 Cale, William, French peasant leader, 141, 142.
 Callimachus, early librarian, 8.
 Calvin, John, religious reformer, 222, 223, schools, 231; attitude toward interest, 301, 302.
 Cammaerts, Emil, quoted on Belgian workers, 438.
 Campbell, Sir Malcolm, and automobile racing, 544.
 Canals, in various European countries, 536-540.
 Candle auctions, 304.
 Canynge, William, merchant, 172.
Capital, book by Marx, 519.
 Capital, rise of in Middle Ages, 148.
 Carr, John, quoted on the Dutch, 339, 386, 387.
 Cartel, German, 445.
 Carthage, treatment of labor, 14; slavery, 23, 24; soil, 29; irrigation, 33; agriculture, 37; jewelry, 51; architecture, 54; painting, 57; coinage, 66; trade, 72, 73.
 Cartier, Jacques, explorations of, 320.
 Cartwright, Edmund, and power loom, 418, 419.
 Case, C. M., author, 60.
 Case, W. W., cited, 680.
 Cassel, battle of, 140, 263.
 Casual trade, defined, 61.
 Catholic unions, of Italy, 505, 506.
Catholic World, quoted or cited, 70, 336, 398.
 Cato, of Rome, denounces luxuries, 7; on slaves, 25, 26; on fertilizers, 36; on agricultural science, 37; on commerce, 74.
 Cattle, in ancient world, 40, 41; improvements in Flanders, 270, 271; in England, 277.
 Cavendish, Henry, and hydrogen, 235.
 Celts, agriculture of, 84, 85.
 Censari, defined, 94.
 Censorious, cited on commerce, 74.
 Centrosoyuz, of Russia, 655, 656.

- Century Magazine*, quoted, 343.
 Cervantes, Saaverda de, Spanish author, 233.
 Chamberlain, Joseph, a progressive manufacturer, 433; and tariffs, 572, 573.
 Chamberlain, W. H., author, 509.
 Chamberlayne, writer, cited on amusements, 250.
 Champlain, Samuel, and French settlements, 320.
 Chancellor, Richard, and Russian trade, 322.
 Chapin, F. S., cited, 18.
 Chapman, C. E., author, 116, 238.
 Chapman, J. M., cited, 589.
 Chapmen, traders, 171, 172.
 Charity, as practiced by gilds, 164.
 Charlemagne, attitude toward interest, 125; necessary workers, 154; commerce, 168; tolls, 178; coinage, 182; destroys Saxon strongholds, 190; commerce, 194; population statistics, 352; canals, 537.
 Charles II, of England, and horses, 277; and minted coins, 307.
 Charles III, of Spain, and agriculture, 258; and manufactures, 287.
 Charles V, emperor, or Charles I, of Spain, and Luther, 221, 222; and Francis I, 267; and German peasants, 267; borrows from the Fuggers, 300, 301; and mercantilism, 310, 311.
 Charles IX, of France, and schools, 230.
 Chater, Melville, quoted on Zagreb market, 654.
 Chatterton, Thomas, writer, 232, 233.
 Chaucer, Geoffrey, cited, 172.
 Chevage, manorial fine, 91.
 Cheyney, E. P., cited, 90, 218, 295, 381.
 Child laborers, treatment of in England, 471-475.
 Child, Josiah, stock jobber, 305; and mercantilism, 311.
 Chivalry, discussed, 114, 115.
 Christian IV, of Denmark, and commerce, 324.
 Christian V, of Denmark, and commerce, 325.
 Christian VI, of Denmark, and peasants, 264.
 Christian socialists, in England, 524.
 Christian union, proposed, 345.
 Christian unions, in Germany, 502, 503.
 Christianity, influence on treatment of slaves, 26.
 Chronometer, invention of, 293, 298.
 Church, in the Middle Ages, missionaries of, 117; division of, 117; history sketched, 117, 118; doctrines of, 118, 119; attitude toward labor, 119, 120, 136; influence on agriculture, 120-122; on manufactures, 122-124; early attitude toward commerce, 124; teaching on just price and interest, 124-126; actual influence on commerce, 126, 127; Crusades and their effects, 127-134; 1500 to 1800: declining influence of, 219, 220; and Martin Luther, 220-222; spread of Protestantism, 222, 223; in England, 223-225; in France, 225; in Germany, 226; Catholic Counter Offensive, 226-228; religious conditions since 1800, 344-346.
 Church, A. J., cited, 66.
 Cicero, Roman orator, 9; on commerce, 74.
 Cimon, Athenian leader, 17.
 Cistercians, influence on agriculture, 121, 122; and commerce, 126, 127.
 Cities, growth of, 355, 356.
 Clapham, J. H., author, 413, 467, 615.
 Clarke, E. D., quoted on Moscow, 654.
Classical Weekly, cited, 12, 38, 44, 49, 65, 75.
 Clement V, attitude toward interest, 125.
 Client, defined, 27.
 Climate, 30, 31.
 Clisthenes, Athenian lawgiver, 16.
 Coaches, development of, 542, 543.
 Coal, mining of in England, 289; production, 435; production in France, 440, 441; in Germany, 444-446; in Russia, 456.
 Coast line, 29, 30.
 Coate, Mary, author, 238.
 Cobbett, William, and child labor, 470.
 Cobden, Richard, and corn laws, 571; and treaty with France, 575.
 Cockerill, William, and machinery, 429.
 Cock-throwing and fighting, 250, 251.
 Coefficients of increase, tariff, 579.
 Coeur, Jacques, French merchant, 320.
 Cohen, Einar, author, 657.
 Coinage, debasement of, 17, 182.
 Coke of Holkham, and scientific farming, 275.

- Colbert, of France, and learned societies, 235; agriculture, 272; guilds, 282, 283; manufactures, 288, 289; commerce, 321; population statistics, 352, 353; roads, 540.
- Cole, G. D. H., author, 509.
- Colet, John, reformer, 131, 220.
- Colling, Charles, and cattle, 277.
- Colling, Robert, and cattle, 277.
- Collins, William, poet, 232.
- Coloni, discussed, 137, 138.
- Columbus, Christopher, and Indian slavery, 239, and discoveries, 297.
- Columella, cited on seed selection, 35, on fertilizers, 36.
- Combat, German judicial duel, 103.
- Comitatus, defined, 102, 103.
- Commenda, defined, 182.
- Commendator, defined, 182.
- Commerce, in ancient world early, 61, 62; recognition of private property, 62; early difficulties, 63; transportation facilities, 63-66; money, 66, 67; interest, 67, 68; banking, 68, 69; domestic trade, 69-71; foreign trade, 71-77; in the Middle Ages: attitude of Church toward, 121-127; influence of Crusades on, 133, 134; decline of western commerce, 168; commercial conditions about 1000, 166-170; rise of towns, 170, 171; trade of towns, 171, 172; town policy, 172, 173; guild merchant, 173-177; land trade, 177, 178; fairs, 178, 180; sea trade, 180, 181; development of commercial association, 181, 182; coinage, 182-184; banking, 184, 185; southern commerce, 185-188; general nature of Europe's eastern trade, 189, 190, the Hanseatic League 190-193; commerce of middle Europe, 193-199; commerce of other European nations, 199-201; from 1500 to 1800: expanding commercial world, 296-298; changes in economic organization, 298-300; rise and fall of the Fuggers, 300, 301; rise of banks and stock exchanges, 301-304; speculation, 304-306; money, 306-310; mercantilism, 310-312; decline of Italian cities, 313; trade of the German cities, 313-315; rise and fall of Portugal, 315, 316; rise and fall of Spain, 316-318; rise and fall of Dutch commerce, 318-320; France's struggle for commercial supremacy, 320-322; mastery of the English, 322-324; Scandinavian commerce, 321, 325; Swiss commerce, 325; Russian commerce, 325-327; commerce of Poland and the Balkans, 327, 328; fairs and domestic trade, 328-331; commerce since 1800: England, 616-622; Germany, 622-625; France, 625-627; Holland, 627-630; Russia, 630-632; Italy, 632-634; Belgium, 634-636; Switzerland, 635, 636; Austria-Hungary, 636-638; Austria, 638, 639; Hungary, 639, 640; Czechoslovakia, 640; Spain, 640, 641; Portugal, 641; Denmark, 641, 642; Norway, 642, 643; Sweden, 643, 644; Finland, 644, 645; Estonia, 645; Latvia, 645, 646; Lithuania, 646; Poland, 646, 647; Serbia, 647, 648; Montenegro, 648; Yugoslavia, 648, 649; Albania, 649; Rumania, 649; Bulgaria, 649, 650; Greece, 650-652; Turkey, 652; internal trade, 652-656.
- Commercial and Financial Chronicle*, cited, 683.
- Commons Preservation Society, 379.
- Communist Manifesto*, discussed, 379.
- Commutation, defined, 91, growth of, 95.
- Companies, trading, 298-300, 305, 306; Dutch West and East India, 319, 320; French, 321, 322; English, 323.
- Compass, introduction of, 180.
- Compounding, of population, 42.
- Compurgation, among early Germans, 103.
- Condiffe, J. B., quoted on World War effects, 667.
- Congressional Digest*, cited, 376.
- Conner, J. E., quoted on ancient trade, 69, 70.
- Conner, traveller, quoted on Poles, 217.
- Conscience, and the development of property rights, 62.
- Conscription of labor, in Russia, 505; in Bulgaria, 650.
- Constantine, moves his capital, 117; and coloni, 137.
- Constantinople, influence on guilds, 156, 157; manufactures, 166; economic importance, 185, 186.
- Consubstantiation, defined, 222.
- Consumers' Cooperatives, in Russia, 655, 656.
- Contemporaries, views on peoples from 1500 to 1800: general comparisons, 205-207; England, 207-209; French,

- 209-211; Germans, 211, 212, Italians, 212, 213; Spanish, 214; northern peoples, 214, 215; eastern peoples, 215-218; since 1800: eastern Europe, 335-337; Scandinavia, 337, 338; middle Europe, 338-341; southern Europe, 341-344.
- Contemporary Review*, cited, 680, 683.
- Contingents, advantages of, 584.
- Cooperation, agricultural, 371-373.
- Copernicus, Nicholas, astronomer, 233.
- Copper, in early times, 48, 49.
- Cordova, conveniences, 106, 107; manufacturing, 166.
- Corinth, early war vessels, 65; canal, 538.
- Corn laws, England, 278, 374, 571.
- Cornille, Thomas, French dramatist, 233.
- Cornelius, early pottery manufacturer, 48.
- Cort, Henry, and iron, 419, 420.
- Corvee, labor tax, 260, 261; on roads, 540.
- Coryat, traveller, cited on Switzerland, 329.
- Cottars, discussed, 91.
- Cotton, in ancient times, 45.
- Coulanges, Fustel de, cited, 85, 86.
- Coulton, G. G., editor, 126; author, 202.
- Councils, Nicaea on interest, 125; Clermont, and First Crusade, 128; Pisa and church schism, 220; Constance and schism, 220; Basel, and pope's power, 220; Trent and reformation, 227.
- Country Life*, cited, 636; quoted on Hungarian markets, 653, 654.
- Court of Assistants, and gilds, 279, 280.
- Courts, wood, 82; baron, 88; customary, 88, 89; lect, 89; commercial, 179; gild, 279, 280.
- Cowper, William, poet, 232.
- Coxe, William, quoted on Swiss agriculture, 273; manufactures, 460.
- Coxe, traveller, quoted on Poles, 216, 217.
- Cox's case, and schools, 229.
- Cranmer, Thomas, and the prayer book, 224.
- Cranages, Thomas and George, and furnaces, 419.
- Crawford, N. A., cited, 375.
- Credit, agricultural, 369-371.
- Cremation, among Germans, 104.
- Crescent, Fertile, discussed, 1, 2.
- Crete, pottery, 47; painting, 58; naval strength, 65; commerce, 73.
- Croesus, and minted money, 66.
- Crompton, Samuel, and spinning machinery, 418.
- Crops, in ancient world, 38-40. *See* agriculture.
- Crusades, sketched, 127-129; moral results, 129; political results, 129, 130; social results, 130-132; economic results, 132-134.
- Culbertson, W. S., author, 312.
- Culture, prehistoric, 2-4; system, in Java, 628.
- Cunard, Samuel, and ocean traffic, 555.
- Cunningham, W., cited, 19, 116, 123, 158, 161, 295, 312, 428.
- Current History*, cited or quoted, 399, 400, 465, 505, 574, 683.
- Cusin, Charles, and watches, 292.
- Customs duties, revenues from, 606.
- Customs unions, recent, 569; German, 576, 577.
- Cutts, E. L., author, 202.
- Cuza, Prince, and land confiscations, 395.
- Cyrus, interest in navigation, 32, 33.
- Czechoslovakia, people, 341; education, 348; farms, 394; manufactures, 453-455; social insurance, 485, 486; tariff, 581; commerce, 640.
- Da Gama, Vasco, voyage of, 296, 315.
- Daggett, Stuart, cited, 553.
- Dairying, described in Switzerland, 403, 404; in Holland and Denmark, 405.
- Dakyn, H. G., translator, 31.
- Dale, H. E., cited, 368.
- Dallas, A. K., translator, 116.
- Dante, Alighieri, poet, 131.
- Darby, Abraham, and iron manufactures, 290.
- Darley Arabian, famous horse, 277.
- Darwin, Charles, evolutionist, 350.
- Da Vinci, Leonardo, and machinery, 415; and locks, 536.
- Davis, W. S., cited, 74, 101, 238, 278.
- Davy, Humphrey, and safety lamp, 426.
- Dawes Plan, and reparations, 663.
- Dawley, T. R., quoted on Spanish inn, 343.
- Dawson, Philip, author, 566.
- Dawson, W. H., author, 509.

- Day, Clive, quoted or cited, 77, 169, 170, 172, 181, 182, 202, 304, 331, 413, 431, 467, 618, 657.
- Dead reckoning, defined, 180.
- de Bourgon, d'Etienne, quoted on usurers, 125, 126.
- Debt slavery in Rome, 16.
- Debts, war, 664-667; and London Conference, 682.
- Defoe, Daniel, writer, 232; cited on wages, 242, 284, on wool manufactures, 284, quoted on coal-mining, 289, 290, cited on wool, 417.
- Deists, doctrines of, 236.
- De Lesseps, Ferdinand, and canals, 539.
- De Madariaga, Salvador, author, 685.
- Delle-Donne, O., cited, 575, 576, 578, 579.
- Demesne, defined, 88; renting of, 94.
- Denmark, in Middle Ages, agriculture, 100; commerce, 199; from 1500 to 1800: peasants of, 263, 264; manufactures, 293, commerce, 324, 325; since 1800: education, 348, 367; agricultural cooperation, 372; agricultural policy, 376; agrarian conditions, 387, 388; agriculture, 405; manufactures, 463, 464; socialism, 527; tariff, 580, 581; commerce, 641, 642.
- Dennis, A. P., author, 384.
- De Prorok, Byron Khun, cited, 11, 51.
- De Rodes, quoted on Russian commerce, 326.
- Descartes, Rene, philosopher, 234, 236.
- Deutschland*, German submarine, 599.
- Diaz, Bartholomew, voyage of, 296.
- Dickens, Charles, novelist, 349.
- Diderot, editor of encyclopaedia, 238.
- Diehl, Charles, author, 134.
- Diesel, Rudolph, and use of crude oil, 558.
- Dillon, traveller, quoted on Biscayners and Irish, 214.
- Dingle, R. J., translator, 431.
- Diocletian, aids laborers, 18.
- Diogenes, cited, 41.
- Dion, condemns slavery, 21.
- Disarmament, problem of at London Conference, 681, 682.
- Disraeli, Benjamin, and Suez Canal, 539.
- Dolgroukow, Pierre, quoted on extortion in Russia, 391.
- Dollfuss, Engelbert, and socialists, 532, 533.
- Domesday Book*, cited, 86, 89, 105, 122.
- Domestic trade, in the ancient world, 69-71; in the Middle Ages, 168-180; 1500 to 1800, 328-331; since 1800, 652-656.
- Douglas, Dorothy W., cited, 492.
- Douglas, Paul H., cited, 433.
- Dow, E. W., translator, 116.
- Dozza, George, Hungarian peasant leader, 265, 266.
- Draco, Athenian lawgiver, 16.
- Drawbacks, to early commerce, 63; to life in the Middle Ages, 110, 111.
- Dress, manorial inhabitants, 106; in towns, 107, 108; of upper classes, 113, 114; of clergy, 117, 118; women in Vienna, 212; people in Poland, 217; sixteenth-century England, 249.
- Dreyfus, and socialist attitude, 515.
- Drury, Victor, cited, 141, 259.
- Dry farming, in ancient world, 34, 35.
- Dryden, John, writer, 232.
- Dubois, authority cited on slave trade, 240.
- Ducros, Louis, author, 254.
- Dudley, Dud, and iron manufactures, 290.
- Duff, A. M., author, 28.
- Duff, J. W., author, 12.
- Dulles, Eleanor L., author, 615.
- Dunlop, O. J., author, 278.
- Durand Funds, of France, 370.
- Durer, Albert, painter, 132.
- Dutch East India Company, career of, 319, 320; and slavery, 628.
- Dyes, in the ancient world, 45.
- Edie, Lionel D., author, 431.
- Edinburgh *Review*, cited, 438, 475.
- Education, in ancient world, 8-10; in Middle Ages, 130, 131; from 1500 to 1800: in England, 223, 229; in other countries, 229-231; writers, 231-233; intellectual revolt, 233-238; since 1800, 346-350; agricultural, 366-369.
- Edward I, of England, discourages local regulation, 95; and craft guilds, 159.
- Edward III, of England, and taxes, 144; sumptuary legislation, 150, borrows money from merchants, 172, 198; and corn laws, 278.
- Edward VI, of England, and religious changes, 224; and guilds, 281.
- Edwards, Bryan, cited, 240.

- Egan, M. F., cited, 464.
- Egypt, early civilization begins, 1, 2; plateau hunters of, 4; intellectual progress, 5, 8, 9; life of nobles, 7; religion, 10; treatment of labor, 14-16; wages, 17; labor organizations, 19; slave labor, 21; soil, 29; irrigation, 32; animal industries, 40, 41; manufactures, 45, 49, 53, 54; architecture, 54; painting, 57; transportation facilities, 63, 64; money, 66; banking, 68, 69; domestic trade, 69; foreign trade, 72, 73.
- Eichelberger, Clark M., cited, 665.
- Elder, John, and compound engines, 555.
- Electric cars, development, 552, 553.
- Electrum, defined, 66.
- Elers, famous potters, 289.
- Elizabeth of England, and education, 229; relief of poor, 246; labor legislation, 281, 282; coinage, 307.
- Elkington, Joseph, drainage, 275, 361.
- Ely, R. T., cited, 511.
- Emery, Josiah, chronometer-maker, 293.
- Emigration, discussed, 356-360.
- Enclosures, and peasant revolts, 262, 263, 378-381, 388.
- Encyclopaedists, French, 237, 238.
- Enfield, Ralph, cited, 371.
- Engels, Friedrich, famous socialist, 517-519.
- England, economic conditions in Middle Ages, 195-199; from 1500 to 1800: people as viewed by contemporaries, 207-209; education, 228, 229; writers, 231-233; peasants, 261-263; agricultural improvements, 273-278; guilds, 279-282; domestic manufactures, 283-286; manufactures, 289, 290; coinage, 307; commerce, 322-324; since 1800: education, 346, 347; population, 352; emigration, 357-359; agricultural education, 366, 367; agricultural credit, 370, 371; agricultural policy, 377, 378; agrarian conditions, 385, 386; agriculture, 405, 406; industrial revolution begins, 415-417; inventors of, 417-422; manufactures, 432-437; labor conditions and laws, 468-479; social insurance, 483, 484; labor organizations, 497-500; socialism, 522-525; canals, 537, 538; wagon roads, 540; railroads, 544-546; merchant marine, 553-555; tariff, 570-574; banking, 593-597; taxes, 605, 607, 614; commerce, 616-622; war debts, 659-662; to United States, 664-667.
- Engrossing, defined, 163.
- Epicurus, early philosopher, 9.
- Equites, Roman moneyed class, 74.
- Erasmus, Desiderius, 111, 131, 220, 227.
- Eratosthenes, early scientist, 8, 9.
- Erfurt Program, socialist ideals, 521.
- Ergastula, slave prison, 26.
- Estonia, agriculture, 400; manufactures, 465; dictatorship in, 534; commerce, 645.
- Eszterhazys, Hungarian landholders, 394.
- Etruscans, and irrigation, 33.
- Eucharist, nature of, 118, 219.
- Euripides, plays of, 8.
- Eustachio, Bartholomeo, Italian scientist, 234.
- Evans, Joan, author, 116.
- Evans, Mary, author, 12, 238.
- Evelyn, John, prose writer, 232.
- Exchange restrictions, 538, 601, 602, 604, 605.
- Exchanges, development of, 303, 304.
- Excise taxes, yield from, 606, 607.
- Excommunication, defined, 119.
- Expenditures, of various countries, 611, 612.
- Experiment stations, work of, 368.
- Export duties, 567, 568.
- Exports. *See* commerce of individual countries.
- Fabian Society, in England, 524, 525.
- Fabricius, John, scientist, 234.
- Factory, as trading point, 192.
- Fairs, commercial, 178-180, 328, 329, 652, 655; agricultural, 368, 369.
- Fallopio, Gabriello, scientist, 234.
- Farms, size of in ancient world, 37, 38; in modern Europe, 381-383.
- Fascism, spread of, 531-535; and banks, 600.
- Fay, C. R., author, 384, 657.
- Feasting, in Middle Ages, 115, 116.
- Ferenczi, Imre, author, 360.
- Ferry, Jules, and education, 346.
- Fertilizers, use of since 1800, 364-366.
- Feudalism, decline of, 129, 130.
- Field, Cyrus W., and cables, 564.
- Fielder, John, and child labor, 470.
- Field-grass husbandry, 97.
- Fielding, Henry, early novelist, 232.
- Finland, agricultural credit in, 371; agricultural cooperation, 373; agra-

- man conditions, 388, 400, 401; man-
 ufactures, 405; tariff, 581; commerce,
 611, 615; continues to pay on debt,
 667.
 Fire, importance of to early man, 42
Irma burgi, collection of, 176.
 Irth, C. H., author, 218
 Isscher, Christian Augustus, quoted on
 Madrid market scene, 653.
 Fish, importance of, 192, 194, 200, 642
 Five-Year Plan, in Russia, 393, 394,
 458, effect on internal trade, 656
 Flag surtaxes, defined, 569.
 Flanders, agriculture in the Middle
 Ages, 99, manufactures, 166, 167,
 commerce, 193
 Flanders galleys, 187.
 Flemish Hanse, discussed, 197
 Fletcher, John, dramatist, 231.
 Florence, guilds of, 157; coinage, 183,
 trade, 188, relative decline, 286, 313
 Florinsky, M. T., author, 534.
 Flowers, use of in ancient world, 39,
 40.
 Flugel, Felix, author, 331.
 Fontaine, Arthur, author, 467
 Fontaine, de la Jean, French writer,
 233.
 Foodstuffs, manufacture of, 42-44;
 trade in, 76, 77, used by workers,
 248, 250, 489, 491
Foreign Policy Reports, cited, 569, 576,
 582.
 Forestalling, defined, 163
 Forks, early lack of, 115.
 Fourier, Charles, French socialist, 512,
 513
 Fowler, W. W., author, 28
 France, trade of in Middle Ages, 193
 195; from 1500 to 1800 people as
 seen by contemporaries, 209-211;
 schools, 229, 230, peasants, 258-261,
 agricultural improvements, 271, 272,
 guilds, 282, 283; manufactures, 288,
 money, 307-309, commerce, 320-322,
 since 1800 education, 340; emigra-
 599, taxes, 605, 606, 609, 614; com-
 merce, 625-627; war debts, 659-662;
 debts, 664, 667.
 Frank, Tenney, author, 28, 41, 60, 77,
 152.
 Frankenhause, battle of, 267.
 Franklin, Benjamin, and electricity,
 226.
 Franks, tribe of, 83, 84.
 Frederick Barbarossa, of Germany, and
 Crusades, 128.
 Frederick the Great, of Prussia, and
 education, 230, writers, 233, manu-
 factures, 290; commerce, 314
 Frederick the Wise, of Saxony, and
 Luther, 221, 222.
 Frederick William, of Prussia, and
 education, 230.
 Freedmen, in Rome, 27, 28, among
 early Germans, 103.
 Freeman, on manor, 89; growth of,
 94; among Germans, 103
 Frisians, early importance of, 193
 Froissart, Jean, chronicler, cited, 142
 Frontinus, cited on Roman water bu-
 reau, 59.
 Fuggers, banking business of, 300, 301
 Fulcon, early free laborer of Angers,
 145, 146.
 Fulton, Robert, and steamboats, 555,
 and submarines, 559
 Funck-Brentano, Frantz, author, 278.
 Gabelle, French salt tax, 260, 261.
 Gairdner, James, cited, 110, 111
 Galileo, Italian astronomer, 233, 234
 Gangmasters, on farms, 473
 Gardens, pleasure of antiquity, 39, 40
 Gardner, Helen, cited, 51, 52, 60, 131.
 Gardner, Percy, author, 77.
 Garland, cited on free work-

- George of Cappadocia, business bishop, 126.
- Germany, in the Middle Ages, 81-84; early characteristics, 102-104; manufactures, 154, 166; trade, 187; from 1500 to 1800: contemporary characterizations of people, 211, 212; education, 230; decline of guilds, 282; domestic manufactures, 283; trade, 313, 314; since 1800: education, 346; emigration, 359; agricultural education, 367; agricultural credit, 369, 370; agricultural policy, 377; agrarian conditions, 387; agriculture, 405, 408, 409; industrial machinery, 428, 430; manufactures, 442-450; labor laws, 479, 480; social insurance, 482, 483; labor organizations, 502-504; socialism, 517-522; canals, 537; roads, 541; railroads, 548; merchant marine, 556, 558; aviation, 561, 562; tariff, 576-578; banking, 593, 598, 599, 609, 610, 613, 614; commerce, 622-625; war debt, 659-662; reparations, 662-664.
- Geyer, W. de, translator, 254.
- Gibbins, H. de B., cited or quoted, 86, 143, 151, 152, 174, 242, 295, 331, 385.
- Gibbon, Edward, prose writer, 232.
- Gide, Charles, author, 657.
- Gifts, and beginnings of trade, 61, 62.
- Gilbert, John, and fertilizers, 365.
- Gilbert's Act, discussed, 247.
- Gilchrist, P. C., and steel manufacture, 421.
- Gild socialism, 525.
- Gilds, in ancient world, 20; craft of Middle Ages: nature and origin, 156-158; authority of, 158-160; organization, 160-162; objects and methods, 163, 164; merits and defects, 164, 165; decline of, 279-283; in France, 438; in Germany, 442; merchant guilds discussed, 173-177.
- Giles, Peter, author, 12.
- Giulitti government, and Italian socialists, 506.
- Girault, Arthur, 584.
- Gite, defined, 90, 261.
- Gladstone, W. E., and land systems, 386; tariffs, 572.
- Glass-blowing, 51.
- Glazier, Richard, cited, 45, 46.
- Gloucester Grammar School case, 228.
- Goats, in ancient world, 40, 41.
- Godolphin Arabian, famous horse, 277.
- Gods, heathen, 10-12, 101.
- Goethals, George W., and Panama Canal, 539.
- Goethe, Johann W., quoted on Italian peasants, 256, 257; on Naples street trade, 330, 331.
- Gold, used in clothing, 46; ancient sources of, 49.
- Goldsmith, Oliver, writer, 232.
- Goldsmiths, early bankers, 184; and the Bank of England, 303.
- Gold standard, and financial troubles, 600-605.
- Goldstrom, John, author, 566.
- Gonzalez, Antony, and black slaves, 136.
- Gould, S. Baring, quoted on mistreatment of women, 385.
- Government aid to agriculture, 373-378.
- Gracchus, Gaius, 14; corn law of, 16.
- Gracchus, Tiberius, reformer, 14; on size of farms, 37.
- Gräf Zepplin, and world trip, 561.
- Graham, F. D., cited, 592.
- Grains, in ancient world, 38; commerce in, 76.
- Grand Consolidated National Trades Union, 498.
- Gras, N. S. B., author, 41, 87, 101, 152, 278, 384.
- Gray, Thomas, poet, 232.
- Great Charter, trading clauses of, 196.
- Great Depression, 1929-1936, effect on education, 347; discussed, 667-680.
- Greece, in ancient world, education, 8; free labor, 16; wages, 17, 18; slavery, 23, 25; soil, 30; climate, 30, 31; irrigation, 33; agriculture, 34, 35, 37; size of farms, 37; crops, 38; animal industries, 40, 41; manufactures, 44; 47, 48, 51; architecture, 56; painting, 58; specialization in pottery, 58, 59; coinage, 66; interest, 67; banking, 68; commerce, 68, 69, 73; in modern times: peasants, 256; commerce, 328, 650-652; characteristics of people, 335, 336; land reclamation, 362; agricultural conditions, 396, 397; manufactures, 462.
- Gregg, W. C., cited, 453.
- Gregory VII, pope, 117, 219.
- Grindcobbie, executed English peasant leader, 145.
- Grosley, traveller, quoted on Italian fair, 328, 329.
- Gruntzel, Josef, cited, 569, 584.
- Guesde, Jules, French socialist, 515.

- rian conditions, 388, 400, 401; manufactures, 463; tariff, 581; commerce, 644, 645; continues to pay on debt, 667.
- Fire, importance of to early man, 42.
- Firma burgi*, collection of, 176.
- Firth, C. H., author, 218.
- Fischer, Christian Augustus, quoted on Madrid market scene, 653.
- Fish, importance of, 192, 194, 200, 642.
- Five-Year Plan, in Russia, 393, 394, 458, effect on internal trade, 656.
- Flag surtaxes, defined, 569.
- Flanders, agriculture in the Middle Ages, 99 manufactures, 166, 167, commerce, 193.
- Flanders galleys, 187.
- Flemish Hanse, discussed, 197.
- Fletcher, John, dramatist, 231.
- Florence, guilds of, 157; coinage, 183, trade, 188; relative decline, 286, 313.
- Florinsky, M. T., author, 534.
- Flowers, use of in ancient world, 39, 40.
- Hugel, Felix, author, 331.
- Fontaine, Arthur, author, 467.
- Fontaine, de la Jean, French writer, 233.
- Foodstuffs, manufacture of, 42-44; trade in, 76, 77; used by workers, 248, 250, 489, 491.
- Foreign Policy Reports*, cited, 569, 576, 582.
- Forestalling, defined, 163.
- Forks, early lack of, 115.
- Fourier, Charles, French socialist, 512, 513.
- Fowler, W. W., author, 28.
- France, trade of in Middle Ages, 193-195, from 1500 to 1800: people as seen by contemporaries, 209-211, schools, 229, 230, peasants, 258-261, agricultural improvements, 271, 272, guilds, 282, 283; manufactures, 288, money, 307-309, commerce, 320-322, since 1800 education, 310, emigration, 359 immigration, 360; agricultural credit, 370, agrarian conditions, 386, agriculture, 406-408, industrial machinery, 428-430; manufactures, 438-442; labor legislation, 479; social insurance, 484, 485; labor organizations, 500-502, socialists and socialism, 511-517, canals, 536; roads, 540; railroads, 547-548; merchant marine, 556, 558; aviation, 562, 563; tariff, 574-576, banks, 592, 593, 597-599; taxes, 605, 606, 609, 614; commerce, 625-627; war debts, 659-662; debts, 661, 667.
- Frank, Tenney, author, 28, 41, 60, 77, 152.
- Frankenhausen, battle of, 267.
- Franklin, Benjamin, and electricity, 236.
- Franks, tribe of, 83, 84.
- Frederick Barbarossa, of Germany, and Crusades, 128.
- Frederick the Great, of Prussia, and education, 230; writers, 233, manufactures, 290, commerce, 314.
- Frederick the Wise, of Saxony, and Luther, 221, 222.
- Frederick William, of Prussia, and education, 230.
- Freedmen, in Rome, 27, 28; among early Germans, 103.
- Freemen, on manor, 89, growth of, 94, among Germans, 103.
- Frisians, early importance of, 193.
- Froissart, Jean, chronicler, cited, 142.
- Frontinus, cited on Roman water bureau, 59.
- Fuggers, banking business of, 300, 301.
- Fulcon, early free laborer of Angers, 145, 146.
- Fulton, Robert, and steamboats, 553, and submarines, 559.
- Funck-Brentano, Frantz, author, 278.
- Gabelle, French salt tax, 260, 261.
- Gairdner, James, cited, 110, 111.
- Galileo, Italian astronomer, 233, 234.
- Gangmasters, on farms, 473.
- Gardens, pleasure of antiquity, 39, 40.
- Gardner, Helen, cited, 51, 52, 60, 131.
- Gardner, Percy, author, 77.
- Garlande, Jean, cited on free workers, 146.
- Garrick, David, quoted on French women, 209; author, 218.
- Gebhard, Hannes, and agricultural co-operation in Finland, 373.
- General Confederation of Labor, in France, 500-502.
- General Confederation of Labor in Italy, 506.
- Geneva, Declaration of, on education, 347.
- Gengembres' mechanical adjuster, 586.
- Geneva Conference, and the gold standard, 602.
- Geneva, trade of, 188.

- George of Cappadocia, business bishop, 126.
- Germany, in the Middle Ages, 81-84; early characteristics, 102-101; manufactures, 154, 166; trade, 187; from 1500 to 1800: contemporary characterizations of people, 211, 212; education, 230; decline of guilds, 282; domestic manufactures, 283; trade, 313, 314; since 1800: education, 346; emigration, 359; agricultural education, 367; agricultural credit, 369, 370; agricultural policy, 377; agrarian conditions, 387; agriculture, 405, 408, 409; industrial machinery, 428, 430; manufactures, 442-450; labor laws, 479, 480; social insurance, 482, 483; labor organizations, 502-504; socialism, 517-522; canals, 537; roads, 541; railroads, 548; merchant marine, 556, 558; aviation, 561, 562; tariff, 576-578; banking, 593, 598, 599, 609, 610, 613, 614; commerce, 622-625; war debt, 659-662; reparations, 662-664.
- Geyer, W. de, translator, 254.
- Gibbins, H. de B., cited or quoted, 86, 143, 151, 152, 174, 242, 295, 331, 385.
- Gibbon, Edward, prose writer, 232.
- Gide, Charles, author, 657.
- Gifts, and beginnings of trade, 61, 62.
- Gilbert, John, and fertilizers, 365.
- Gilbert's Act, discussed, 247.
- Gilchrist, P. C., and steel manufacture, 421.
- Gild socialism, 525.
- Gilds, in ancient world, 20; craft of Middle Ages: nature and origin, 156-158; authority of, 158-160; organization, 160-162; objects and methods, 163, 164; merits and defects, 164, 165; decline of, 279-283; in France, 438; in Germany, 442; merchant guilds discussed, 173-177.
- Giles, Peter, author, 12.
- Giulitti government, and Italian socialists, 506.
- Girault, Arthur, 584.
- Gite, defined, 90, 261.
- Gladstone, W. E., and land systems, 386; tariffs, 572.
- Glass-blowing, 51.
- Glazier, Richard, cited, 45, 46.
- Gloucester Grammar School case, 228.
- Goats, in ancient world, 40, 41.
- Godolphin Arabian, famous horse, 277.
- Gods, heathen, 10-12, 101.
- Goethals, George W., and Panama Canal, 539.
- Goethe, Johann W., quoted on Italian peasants, 256, 257; on Naples street trade, 330, 331.
- Gold, used in clothing, 46; ancient sources of, 49.
- Goldsmith, Oliver, writer, 232.
- Goldsmiths, early bankers, 184; and the Bank of England, 303.
- Gold standard, and financial troubles, 600-605.
- Goldstrom, John, author, 566.
- Gonzalez, Antony, and black slaves, 136.
- Gould, S. Baring, quoted on mistreatment of women, 385.
- Government aid to agriculture, 373-378.
- Gracchus, Gaius, 14; corn law of, 16.
- Gracchus, Tiberius, reformer, 14; on size of farms, 37.
- Graf Zepplin, and world trip, 561.
- Graham, F. D., cited, 592.
- Grains, in ancient world, 38; commerce in, 76.
- Grand Consolidated National Trades Union, 498.
- Gras, N. S. B., author, 41, 87, 101, 152, 278, 384.
- Gray, Thomas, poet, 232.
- Great Charter, trading clauses of, 196.
- Great Depression, 1929-1936, effect on education, 347; discussed, 667-680.
- Greece, in ancient world, education, 8; free labor, 16; wages, 17, 18; slavery, 23, 25; soil, 30; climate, 30, 31; irrigation, 33; agriculture, 34, 35, 37; size of farms, 37; crops, 38; animal industries, 40, 41; manufactures, 44; 47, 48, 51; architecture, 56; painting, 58; specialization in pottery, 58, 59; coinage, 66; interest, 67; banking, 68; commerce, 68, 69, 73; in modern times: peasants, 256; commerce, 328, 650-652; characteristics of people, 335, 336; land reclamation, 362; agricultural conditions, 396, 397; manufactures, 462.
- Gregg, W. C., cited, 453.
- Gregory VII, pope, 117, 219.
- Grindcobbie, executed English peasant leader, 145.
- Grosley, traveller, quoted on Italian fair, 328, 329.
- Gruntzel, Josef, cited, 569, 584.
- Guesde, Jules, French socialist, 515.

- Guest, L. H., quoted on Russian internal trade, 656.
- Guitot, Francois, quoted on churchmen, 121.
- Gulick, Charles B., author, 12, 28.
- Gustavus Adolphus, of Sweden, and commerce, 324.
- Gytha, woman slave trader, 196.
- Haig, R. M., author, 615.
- Hall, G. F., cited, 67, 68.
- Hallam, Henry, cited, 121.
- Halliday-Antona, Annetta, quoted on Russian market scenes, 655.
- Halsey, F. D., translator, 202.
- Hammurabi, Chaldean lawgiver, 16.
- Haney, L. H., cited, 311.
- Hanse, defined, 173, 174; German, 190-193, of Paris, 195; Flemish, 197.
- Hanseatic League, and sailing dates, 181; discussed, 190-193, decline of, 313, 314.
- Hard, William, cited, 693.
- Hardenberg, frees Russian serfs, 387; and tariff, 576.
- Hargreaves, James, machinery of, 417, 418.
- Harper's Monthly Magazine*, cited, 372.
- Harrington, James, political writer, 256.
- Harrison, cited, 250.
- Hart, J. K., cited on Danish schools, 367.
- Harvey, William, and circulation of the blood, 234.
- Hatshepsut, Egyptian trading queen, 72.
- Hauteville, traveller quoted on Poles, 216.
- Hawkins, John, and slave trade, 240, 322.
- Hawtrey, R. G., cited, 597.
- Hayes, E. C., cited, 62.
- Hayward, manorial officer, 88.
- Health, and the factory system, 425, 426.
- Heaton, Herbert, author, 202, 414.
- Hecataeus, early writer, 8.
- Heckscher, E. F., author, 657.
- Helmont, Jean von, and gases, 235.
- Helots, Spartan slaves, 23; treatment of, 25.
- Henry, Charles C., and interurban, 553.
- Henry II, of England, and fairs, 180.
- Henry VIII, of England, and religious changes, 223; and laborers, 241; and peasant revolts, 262.
- Henry IV, of France, and the Huguenots, 225; agriculture, 271; manufactures, 288, 289, claims to America, 297; commerce, 320, 321; canals, 536.
- Henry IV, of Germany, 219.
- Henry, of Huntington, cited, 196.
- Henry, of Knighton, quoted on the Black Death, 138, 139.
- Hentzer, Paul, quoted on the English, 207.
- Herbert, George, poet, 232.
- Heriot, early tax, 266.
- Herodotus, early historian, 8; quoted or cited on Assyria, 32; crop yields, 38; weaving, 58; eastern river boats, 64; circumnavigation of Africa, 72.
- Herrick, Robert, writer, 232.
- Herriot, Edouard, author, 431; and debts, 667.
- Herzfeld, E. E., archaeologist, 46, 55.
- Hesiod, champion of oppressed, 11.
- Hide, Germanic land measure, 82, 83.
- Higby, C. P., author, 238.
- Higgs, Henry, author, 312.
- Highs, early inventor, and Arkwright, 418.
- Hippocrates, father of medicine, 8.
- Hirsch-Duncker unions, of Germany, 502, 503.
- Hirst, F. W., author, 585.
- Hitler, Adolph, and woman labor unions, 480; labor unions, 503, 504; socialists, 531, 532.
- Hittites, picture writing, 4; iron weapons, 49, 53, 71.
- Hoe culture, discussed, 33, 34.
- Holbein, Hans, painter, 132.
- Holdsworth, J. T., cited, 590, 593.
- Holland, or Netherlands, peasants of, 263; agricultural improvements, 270, 271; manufactures, 289; commerce, 318-320; since 1800, industry of people, 339, land reclamation, 361; fertilizers, 364, 365; agrarian conditions, 386, 387; agriculture, 404, 405; manufactures, 463; socialism, 527; merchant marine, 557; tariff, 580, banking, 599, 600; commerce, 627-630.
- Hollberg, Baron, quoted on English, 207.
- Homer, refers to slavery, 22; on hill-side farming, 35; size of farms, 37, weaving, 44.

- Hoover, C. B., author, 457, 467, 505, 534.
- Hoover, Herbert, and war debts, 665.
- Horace, Roman poet, 9.
- Horses, in ancient world, 40; in Spain, 257, 258; in England, 277.
- Hours of work, in ancient world, 18, 19; in Middle Ages, 149, 150.
- Housework, discussed, 44, 153-155.
- Housing legislation, 495-497.
- Howe, F. C., author, 384.
- Hubback, famous bull calf, 277.
- Hucksters, traders, 173.
- Hudson, Henry, voyage of, 318.
- Huebner, G. G., author, 566.
- Huguenots, importance of, 225.
- Hull, Cordell, and tariffs, 681.
- Hullinger, E. W., author, 535.
- Hundred Years' War, 141, 143, 144, 195.
- Hungary, peasants of, 265, 266; a dinner party, 340, 341; land holdings, 394; manufactures, 453; tariff, 581; commerce, 639, 640; a market scene, 653, 654.
- Hunter, M. H., cited, 606, 608, 610, 611.
- Huntington, A. M., cited on Spanish peasants, 389.
- Huskisson, William, and tariff reductions, 570.
- Huxley, Thomas, evolutionist, 350.
- Huygens, Christian, Dutch physicist, 235.
- Iberia. *See* Spain and Portugal.
- Ikhnoton, Egyptian religious leader, 10.
- Iliad*, quoted on flowers, 39; cited on weaving, 44.
- Implements, agricultural, in ancient times, 35; in manorial system, 93; of the agricultural revolution, 362-364.
- Import monopolies, 576.
- Imports. *See* commerce of individual countries.
- Independent*, cited, 400; quoted on Russian market, 655.
- Indians, as slaves, 239, 240.
- Indulgence, doctrine of, 220, 221.
- Industrial establishments, in the ancient world, 59, 60.
- Industrial unionism, 525.
- Inflation, paper money issues since 1800, 590-592.
- Inman, William, and iron boats, 558.
- Innocent III, and papal power, 117.
- Innocent IV, attitude toward interest, 126.
- Inquisition, discussed, 227.
- Insurance, agricultural, 371.
- Interdict, defined, 119.
- Interest-taking, origin of, 67, 68; attitude of early Church toward, 125, 126; attitude of Protestants toward, 301, 302.
- International Labor Office, 482.
- International labor organizations, 508.
- International Monetary Conference, 589.
- Interurbans, development of, 553.
- Ireland, agrarian conditions, 386.
- Irish National Land League, 386.
- Iron, in ancient world, 49; mining in England, 290; manufacture of in Russia, 294; ore in England, 436; in France, 441; in Germany, 446, 447; in Sweden, 464.
- Irrigation, in ancient world, 32, 33; in Spain, 98, 99; since 1800, 362.
- Irwin, Eyles, quoted on Montenegrins, 218.
- Isabella, Queen, and slavery, 239.
- Isaiah, Hebrew prophet, 14.
- Italy, in ancient world: religion, 11, 12; labor, 16, 17; slavery, 23-28; soil, 30; climate, 30; irrigation, 33; agriculture, 35-37; size of farms, 37; animal industries, 40, 41; manufactures, 46, 48, 51-53; architecture, 56, 57; painting, 58; transportation facilities, 64-66; coinage, 67; interest, 68; banking, 68, 69; domestic trade, 70, 71; foreign trade, 74-78; in the Middle Ages: agriculture, 97; craft guilds, 157; commerce, 186-188; from 1500 to 1800: characteristics of people, 212, 213; peasants, 256, 257; manufactures, 286, 287; declining trade, 313; since 1800: people of, 341, 342; emigration, 358, 359; land reclamation, 361, 362; agricultural policy, 377; farm workers, 388; agriculture, 401, 402; manufactures, 458-460; labor organizations, 505, 506; socialism, 530, 531; merchant marine, 557, 558; tariff, 578, 579; banks, 600; commerce, 632-634; Ethiopia, 660; war debts, 664.
- Itinerancy, in wage-work system, 155.
- Ivan the Great, and Novgorod, 192.
- Ivan the Terrible, and Novgorod, 192.

- Jacob, William, quoted on Spanish peasants, 388, 389.
- Jacqueri, revolt in France, 140-142.
- James, M. R., author, 134.
- Jameson, Anna, quoted on Italian peasants, 341, 342.
- Jaures, Jean Leon, French socialist, 515, 516.
- Java, importance of, 628.
- Jenner, Edward, and vaccination, 350.
- Jennings, W. W., cited, 593.
- Jervis, Alice, translator, 218.
- Jesuits, work of, 227, 228.
- Jewelry, in ancient world, 51, 52.
- Jews, in English trade, 196.
- John III, of Portugal, and religious wars, 228.
- Johnson, Ben, dramatist, 231.
- Johnson, E. R., author, 566.
- Johnson, Samuel, prose writer, 232.
- Johnston, H. W., author, 28.
- Jones, Robert, author, 685.
- Joseph II, of Austria, and education, 231, and land reforms, 387.
- Journal of Political Economy*, cited, 433.
- Journeyman, 146, 147, 161, 162, associations of, 279, 280, in France, 500.
- Judea, or Israel, labor, 16, 21, soil, 29 agriculture, 34, 37; animal industries, 40, 41; manufactures, 45, 49, 51, architecture, 56, commerce, 61.
- Junkers, of Germany, 377.
- Juries, field in Germanic system, 82.
- Just price, ideas of Church, 124, 125.
- Justa, defined, 27.
- Justice, Teutonic, 103.
- Justinian, and slaves, 136.
- Karlsgren, Anton, author, 413.
- Karolyi, Count Michael, Hungarian landholder, 394.
- Kassites, introduce horses, 40, 71.
- Kaufman, David B., cited, 65.
- Kautsky, Karl, German socialist, 522.
- Kay, John, English inventor, 285, 286.
- Keary, C. F., cited, 395.
- Keilhau, Wilhelm, author, 657.
- Kellog, Vernon, quoted on Lithuania, 398.
- Kemmerer, E. W., author, 615.
- Kepler, Johannes, astronomer, 233.
- Ket, the tanner, and a peasants' revolt, 262.
- Khan, Mirza Abu Taleb, quoted on the English, 208, 209, on the French, 210, 211.
- King, Gregory, cited, 244, 249, 250.
- Kingsley, Charles, author, 478.
- Klarwill, Victor von, cited, 300.
- Knapp, Dr. Charles, editor of *Classical Weekly*, 12; cited, 44.
- Knight, F. H., translator, 67, 78, 101, 295, 312, 431.
- Knight, M. M., author, 101, 157, 161, 174, 198, 331.
- Knout, and Russian torture, 390, 391.
- Knowles, L. C. A., author, 417, 428, 431.
- Knox, John, and Scotch Presbyterianism, 223, 224.
- Kohler, Carl, author, 116.
- Kononov, S., quoted on Russian labor, 505.
- Kotzebue, dramatist, quoted on national characteristics, 205-207; on Paris street trade, 330.
- Kraemer, Caspar, cited, 44.
- Kreuger, Ivar, Swedish industrialist, 465.
- Krey, A. C., author, 116.
- Krupp works, steel, 444.
- Kulaks, rich Russian peasants, 393, 394.
- Labor*, paper quoted on mistreatment of workers, 385.
- Labor, in ancient world: origin of free, 13, treatment of, 14-16; discussed in southern Europe, 16, 17; life of, 17-19, organizations, 19, 20, slave labor, 21; sources of slaves, 21, 22, treatment of slaves, 24-27, acquisition of freedom, 27, 28; in the Middle Ages' attitude of Church toward, 119, 120; slavery, 135, 136, transition from slavery to serfdom, 136-138; the Black Death, 138, 139, peasant revolts in the Low Countries, 140, in France, 140-142; in England, 142-145; rise of free labor, 145-148, wages and hours of work, 148-150, wages and purchasing power, 150, 151; from 1500 to 1800 slavery, 239-241; free labor in England, 241-246; poor relief, 246-248, life of English laborers, 248-251; life in selected countries, 251-253; since 1800, early legislation in England, 468, 469; growing agitation for reform, 469-471; continued oppression of

- children and the workers, 471-475; legislation since 1833, 475-479; labor legislation in other countries, 479-482; social insurance, 482-487; well-being of, 487-497; labor organizations in England, 497-500; in France, 500-502; in Germany, 502-504; in Russia, 504, 505; in Italy, 505, 506; in other countries, 507, 508.
- La Bresa, and slavery, 240.
- La Bruyere, de Jean, French moralist, 233; quoted on peasants, 258, 259.
- Lagemorgen, defined, 83.
- Laidler, H. W., cited or quoted, 512, 515, 519, 520, 521, 535.
- Laing, Samuel, quoted on Swedes, 337, 338.
- Laissez faire*, doctrine of, and factory evils, 426; and tariff, 570.
- Lamarck, de Jean, and evolution, 350.
- Lamb, Charles, and chimney sweeps, 474.
- Lancaster, James, and India trade, 323.
- Lancaster, Joseph, and schools, 229.
- Landschaften, credit unions of Germany, 369.
- Landucci, Luca, author, 218.
- Langland, William, cited, 172.
- Langley, Samuel P., and aeroplanes, 561.
- Language, origins of, 3, 4.
- La Rochefoucauld, Francois, French writer, 233.
- Lasalle, Ferdinand, German socialist, 520.
- LaSalle, Jean Baptiste, and schools, 230.
- Las Casas, and slavery, 239, 240.
- Last, Hugh, author, 41.
- Latifundia*, large farms, 26, 258.
- Latin Monetary Union, 586, 601, 602.
- Latvia, women of, 336; agriculture, 399, 400; manufactures, 465; commerce, 645, 646.
- Lausanne Plan, and reparations, 663, 664.
- Laval, Premier of France, and debts, 665.
- Lavergne, M. Leonce de, 364, 365.
- Lavoisier, Antoine, French chemist, 235.
- Law, John, and banking, 303; and speculation, 306.
- Lawes, John, and fertilizers, 365.
- League of Nations, on education, 347; on war, 660.
- League of Nations Chronicle*, cited, 389.
- Lear, Edward, quoted on Italian homes, 342.
- Leather manufactures, early, 44, 45; development in Czechoslovakia, 454.
- Leathes, Stanley, editor, 260.
- Lecky, W. E. H., cited, 242, 243.
- Leed's *Mercury*, quoted on child labor, 470.
- Lees-Smith, H. B., cited, 683.
- Leeuwenhoek, van Anton, and protozoa, 234.
- Leibnitz, Gottfried, theorist, 236.
- Lenin, Nicholai, and socialism, 525.
- Leo III, abolishes serfdom, 96.
- Lepanto, battle of, 239, 313.
- Lethaby, W. R., cited, 167.
- Leyr, manorial fine, 91.
- Licinian Laws, of Rome, 14.
- Liebeg, von Justus, and fertilizers, 365.
- Liebknecht, William, German socialist, 520, 521.
- Lindbergh, Charles A., and Atlantic flight, 562.
- Linen, early manufacture of, 45.
- Linnaeus, Carolus, Swedish botanist, 236.
- Lipson, E., cited, 165, 167.
- List, Friedrich, author, 312, 331; and the tariff, 577, 585.
- Lister, Joseph, and antiseptics, 350.
- Literary Digest*, cited, 458, 504, 530, 574, 662, 684, 685.
- Literature, in the ancient world, 8-10; in the Middle Ages, 131; from 1500 to 1800, 231-238; since 1800, 349.
- Lithuania, agriculture, 398, 399; manufactures, 465, 466; commerce, 646.
- Living Age*, quoted or cited, 339, 341, 344.
- Lloyd, S. S., translator, 312, 331, 585.
- Localization of manufactures, Germany, 448.
- Locke, John, philosopher, 236, 237.
- Lollards, wandering preachers, 229.
- Lombe, John, early English industrialist, 414.
- London, Conference of, and silver, 589, 590; foreign trade of, 618; Naval Conference of, 661; Conference of, and tariffs, 681; and disarmament, 681, 682; and debts, 682; and balanced budgets, 683; and coordination of world's resources, 683-685.

- Louis, Paul, author, 28, 41, 60.
 Louis, the Pious, and French fleets, 194.
 Louis IX, of France, ransom of, 126; and Crusades, 128, 129.
 Louis X, of France, and slavery, 136.
 Louis XI, of France, and gilds, 147, 282.
 Louis XIV, of France, and schools, 230, and writers, 233; effect of his wars on agriculture, 271, 272; on manufactures, 288; and canals, 536.
Louisville Courier-Journal, cited, 532, 660.
 Lowie, R. H., author, 41.
 Loyola, Ignatius, work of, 227, 228.
 Ludd, Ned, and riots, 422, 423.
 Lumber, in ancient world, 77.
 Luther, Martin, and the Protestant Reformation, 220-222; and education, 230, and the peasant revolt, 266.
 Lycurgus, Spartan lawgiver, 16.
 Lydia, and minted money, 66.
 Lyell, Charles, geologist, 350.
 Lyly, John, prose writer, 231.
 McClure, Wallace, author, 585.
 McCrackan, W. D., quoted on Swiss cattle industry, 403, 404.
 McFall, R. J., author, 413.
 McNeal, E. H., cited, 191.
 McVey, F. L., author, 431.
 Macadam, John L., and roads, 540, 543.
 Macaulay, Thomas B., historian, 549.
 Macfarland, Charles S., author, 360.
 Machinery, farm improvements, 362, 363.
 Mackenzi, Robert, cited, 660.
 Macpherson, James, writer, 232, 233.
 Magellan, Ferdinand, discoveries of, 297.
 Mago, cited on agriculture, 37.
 Maine, Henry, author, 101.
 Makeev, Nicholas, author, 535.
 Malmen, defined, 84.
 Malpighi, Marcello, and blood corpuscles, 234.
 Malthus, Thomas R., and schools, 229.
 Manor, defined, 85; origin of, 85, 86; lord of, 86-89; classes on, 89-92; methods, 92, 93; changes, 93-95; decline, 95, 96; life, 104-106.
 Manstein, General, quoted on Russians, 215, 216.
 Manufactures, in ancient world: primitive, 42; foodstuffs, 42-44; textiles and kindred materials, 44-46; pottery and kindred products, 46-48, metal, 48-50; seals, glass, and jewelry, 50-52; unguents, 52, 53; weapons, 53, 54; architecture, 54-57; painting, 57, 58; large versus small scale, 58-60; in Middle Ages: influence of the Church on, 122-124; effect of Crusades, 133; house work, 153-155; wage-work, 155, 156; nature and origin of crafts, 156-158; question of authority, 158-160, craft guild organization, 160-162; objects and methods of gilds, 163, 164; merits and defects of gilds, 164, 165; manufacturing regions, 165-167; from 1500 to 1800: guild decline, 279-283; domestic system, 283-286; manufactures of southern Europe, 286-288; manufactures of France and Flanders, 288, 289; English manufactures, 289, 290; manufactures of central Europe, 290-293; backward industrial regions, 293-295; since 1800: early factories, 414, 415; beginnings of revolution in England, 415-417; nature of, 417-422; economic and social effects, 422-428; contributions of and beginnings in other countries, 428-431: England, 432-437; Belgium, 427, 438. France, 438-442; Germany, 442-450, Austria-Hungary, 450-452; children of the partition, 452-455; Russia, 455-458; Italy, 458-460; Switzerland, 460, 461; backward regions of southern Europe, 461-463; northwestern Europe, 463-465; Baltic countries and Poland, 465-467.
 Manumission of slaves, 27, 28.
 Maona, defined, 185.
 Marcel, Etienne, French peasant leader, 141.
 Marcellinus, Ammianus, cited, 96.
 Marconi, G., and wireless, 565.
 Marcus Aurelius, author, 10; favors gilds, 20.
 Marggraff, Andreas, and bees, 429.
 Maria Theresa, and education, 230, 231; and land reforms, 387.
 Markets, ancient, 69-71; in Middle Ages, 169, 173, 278; from 1500 to 1800, 328-331; modern, 652-654.
 Marlowe, Christopher, English dramatist, 231.
 Marque, letters of, 181.
 Marriage, among early Germans, 104.

- Marseilles, importance of, 195, 626.
 Marshall, L. C., cited, 176.
 Martinovitch, war minister cited on Montenegrins, 336.
 Marx, Karl, life and works of, 517-520.
 Mary, of England, and religious persecution, 224.
 Maspero, G., quoted on Egyptian labor, 15, 16.
 Masso, Gildo, author, 535.
 Masterpieces, in gild system, 162.
 Masters, in gild system, 162.
 Matheson, P. E., author, 208.
 Matthew, of Westminster, quoted on expulsion of Jews, 196.
 Mausolus, tomb of, 56.
 Mavor, James, cited, 245, 295, 326, 331, 413.
 Maximilian I, and the Fuggers, 300.
 Mayor, of the Staple, 198.
 Mayor's price, defined, 173.
 Medici, de, Florentine bankers, 184, 301.
 Megarans, agriculture of, 35; sheep, 41, *Meierrecht*, large estate, 267.
 Meikle's threshing machine, 362.
 Melbourne Age, quoted on colonial preference, 572.
 Mercantilism, discussed, 310-312.
 Mercator, Isidore, decretals of, 117.
 Merchant Adventurers, and trade, 198.
 Merchants, in Middle Ages, 171, 172.
 Merchants of the Staple, discussed, 197, 198.
 Merchet, manorial fine, 91.
 Mesopotamia, treatment of slaves, 24, 25; irrigation, 32. *See* Babylonia and Assyria.
 Mesta, Spanish monopoly, 258, 316.
 Metals, manufacture of, in ancient world, 48.
 Methuen Treaty, Portugal and England, 316.
 Metics, defined, 70.
 Meton, and computation of time, 8.
 Michael Angelo, sculptor, 132.
 Mikhelson, General, and Russian peasants, 270.
 Miller, S. L., author, 540.
 Millerand, Alexandre, and cabinet position, 515.
 Milton, John, writer, 233, 236.
 Minus Justa, defined, 27.
 Mir, discussed, 269, 270, 392.
 Mitchell, Thomas, ignorant coal miner, 472.
 Mitramy, David, author, 384.
 Mixen, defined, 106.
 Modernism, in religion, 345, 346.
 Molesworth, Lord, quoted on Denmark, 263, 264.
 Moliere, French dramatist, 233.
 Monachism, discussed, 118.
 Monetary problem, at London Conference, 682-685.
 Money, early development, 66, 67; in the Middle Ages, 182; from 1500 to 1800, 306-309; since 1800, 586-592.
 Monopolies, import, nature of, 582, 583; and taxes, 607.
 Monroe, A. E., editor, 134; author, 312.
 Montague, F. C., quoted on France, 260.
 Montenegrins, as viewed by travellers, 217, 218; as peasants, 255, 256; people since 1800, 336; agriculture, 394, 401; manufactures, 461; commerce, 647, 648.
 Montesquieu, de Charles, writer, 237; quoted on preparations for war, 658, 659.
 Moore, John, quoted on Italian peasants, 257; cited on Swiss peasants, 264, 329; quoted on Bohemian peasants, 265; on Swiss agriculture, 273; on Venetian manufactures, 286, 287; on German manufactures, 290, 291.
 Moore, Sir Thomas, 131, 220, 223; quoted on enclosures, 261; cited, 511.
 Moors, agriculture of, 97-99; manufactures, 166; commerce, 186.
 Morfill, W. R., cited, 216, 217.
 Moritz, C. P., quoted on the English, 208.
 Morning gift, defined, 103, 104.
 Moro, Lazzaro, and geology, 236.
 Morris, William, cited, 511.
 Morrison, A. J. W., translator, 257, 331.
 Morse, Samuel, F. B., and telegraph, 563.
 Mortara, Georgio, cited, 402.
 Morton, T. G., and anaesthetics, 350.
 Moryson, Fynes, quoted on English dress, 249; on Switzerland, 329.
 Moses, G. H., quoted on Montenegrins, 336.
 Motor boats, 558.
 Moulton, H. G., author, 685.
 Muller, Hans, German peasant leader, 266, 267.
 Muller, Verner, Russian iron proprietor, 295.

- Mundy, Peter, quoted on the Poles, 216.
- Munger, Thomas, German peasant leader, 267.
- Munn, Thomas, English mercantilist, 311.
- Murex, and dye material, 45.
- Murillo, Bartolome, Spanish painter, 132.
- Mussolini, B., and land reclamation, 361; wheat, 401, 402, private industry, 460, unemployment, 485; parties, 506; socialists, 551.
- Myres, J. L., author, 78.
- Nadler, Marcus, cited, 604.
- Nadyal, Russian land right, 269.
- Nantes, Edict of, 225; effects of revocation, 288, 289, 290, 292.
- Naples, street trade of, 330.
- Napoleon Bonaparte, and sugar beets, 408, 409, guilds, 429, 438; banks, 592; taxes, 613 commerce, 629, cost of his wars, 659.
- Napoleon III, of France, and commerce, 625.
- Nation*, magazine cited, 394.
- National Geographic Magazine*, quoted or cited, 51, 336, 341, 374, 400, 464, 466, 647, 654.
- Navigation Acts, English, 323, 324, 571, 572.
- Nearchus, quoted on Persia, 33.
- Nebuchadnezzar, Hanging Gardens of, 54.
- Nestor, quoted on religious worship, 111.
- Neuburger, Albert, author, 60, 78.
- Neutral, or socialist unions of Italy, 505, 506.
- Newcomen, Thomas, and steam engine, 289, 419.
- Newton, Sir Isaac, scientist, 234, and coinage, 307.
- Nichols, Beverly, quoted on Greeks, 336.
- Nicholson, J. S., quoted on war finance, 613.
- Nineteenth Century*, quoted or cited, 364, 396, 399, 656.
- Nisbet, Charles, translator, 257, 331.
- Normandie, French steamer, 558.
- North American Review*, quoted, 336.
- Northwest Quadrant, importance of, 1, 2.
- Norway, in Middle Ages: agriculture of, 100; manufactures in housework system, 153-155; commerce, 199, 200, economic conditions from 1500 to 1800, 263, 293, 324, since 1800: agrarian conditions, 388, 400, 401; manufactures, 464; socialism, 527; merchant marine, 554, 555; commerce, 642, 643.
- Nussbaum, F. L., author, 312.
- Oastler, Richard, quoted on child labor, 470.
- Obits, defined, 164.
- Occupational groups, chart on for European countries, 412.
- Odyssey*, quoted on slavery, 22.
- Oechsli, Wilhelm, author, 238, 278, 293, 329.
- Officers, manorial, 87, 88, 154; church, 117, 118.
- Ogg, F. A., cited, 174, 467, 509, 535, 591, 615, 657.
- Ogle, Marbury, cited, 38.
- O'Hara, Valentine, cited, 399, 535.
- Oleg, and Russian commerce, 201.
- Olives, importance of in ancient world, 39.
- Olmstead, A. T., author, 12, 41.
- Onions, Peter, and iron industry, 419.
- Opportunism, defined, 515.
- Ordeal, among early Germans, 103.
- Oriental Institute of the University of Chicago, work of, 7, 46, 55.
- Osborn, H. T., author, 12.
- Osborne Judgment, importance of, 499.
- Oslo Agreement, tariff cooperation, 569.
- Ottawa Conference, and tariff, 574.
- Outlook*, cited or quoted, 336, 398, 453, 640, 645, 654.
- Ovando, Spanish governor, and slavery, 239.
- Ovid, cited on slaves, 26.
- Owen, B. J., author, 363.
- Owen, Robert, and farm laborers, 385; child labor, 469; socialism, 510, 522, 524.
- Oxgang, defined, 92.
- Pachomius, and monks, 118, 122.
- Pagament, defined, 183.
- Paget, John, quoted on Hungarian dinner party, 340.
- Painting, in ancient world, 57, 58; in Middle Ages, 131, 132.
- Palermo Stone, 5.

- Palladius, cited, 121, 122.
 Palm, F. C., author, 331.
 Palmeo, Spanish tax, 317.
 Panic, financial, of 1931, 602-605.
 Panin, Peter, and Russian peasants, 270.
 Paris, street trade of, 330.
 Pariset, George, cited, 613.
 Parker, Beryl, author, 360.
 Parrhasius, Greek painter, 58.
 Pascal, Blaise, and atmospheric pressure, 235; and the omnibus, 542.
 Pasion, an early banker, 68.
 Pasteur, Louis, and the germ theory, 350; and the silkworm disease, 373.
Paston Letters, quoted on English life, 110, 111.
 Pasvolsky, Leo, cited, 602, 685.
 Paterson, William, and banking, 302, 303.
 Patten, S. N., cited, 409.
 Patterson, E. M., author, 431, 657.
 Paul, Cedar, translator, 238.
 Paul, Eden, translator, 238.
 Paul, Lewis, and carding machine, 418.
 Paul-Louis, author, 28, 41, 60.
 Paul III, and the Jesuits, 227, 228.
 Paulus, Roman conqueror, 21.
 Pausanias, ancient author, 9.
 Pavia, battle of, 267.
 Peace, of God, 127; Roman, 168.
Peculium, nature of, 27.
 Peddlers, work of, 171, 172.
 Peel, George, and world problems, 680.
 Peel, Robert, factory owner, and child labor, 468, 469.
 Peel, Robert, statesman, and tariff, 570; corn laws, 571; banks, 594; income taxes, 608.
 Pellervo, Finnish cooperative, 373.
 Pentmann, J., cited, 569.
 Pepys, Samuel, prose writer, 232.
 Percy, Thomas, and research in poetry, 233.
 Perfumes, in ancient world, 52, 53.
 Pericles, Athenian leader, 17; age of, 58.
 Perrers, Alice, English courtesan, 144.
 Persia, religion, 10, 11; soil, 29; irrigation, 32, 33; animal industries, 40, 41; architecture, 55, 56; roads, 64; coinage, 67.
 Peruzzi, Italian traders and bankers, 182, 184, 301.
 Pestalozzi, Johann H., and education, 231.
 Peter the Great, of Russia, quoted on European characteristics, 205; peasants, 269; manufactures, 294, 295; commerce, 325-327; canals, 537.
 Peter the Hermit, and Crusades, 128.
 Petrarch, Italian poet, 131.
 Petronius, quoted on the rise of a freedman, 74, 75.
 Petty, William, English mercantilist, 311.
 Pforzheim, and jewelry, 448.
 Phidias, Greek sculptor, 56.
 Philemon, questions slavery, 21.
 Philip Augustus, of France, and trade, 195.
 Philip II, of France, and the Crusades, 128.
 Philip II, of Spain, and Catholicism, 228; and mines, 287; annexes Portugal, 315.
 Phoenicia, alphabet, 4; slave trade, 22; soil, 29; irrigation, 33; animal industries, 40, 41; manufactures, 45, 50, 51; commerce, 72.
 Phylloxera, grape vine pest, 373.
 Physiocrats, doctrines of, 237; representatives of, 570.
 Pie Powder, court of, 179.
 Pigou, A. C., author, 615.
 Pijon, Joseph, author, 60.
 Pilgrimage of Grace, and revolt, 262.
 Pindar, poet, quoted on flowers, 39, 40.
 Pinot, Pierre, author, 413.
 Piracy, in Middle Ages, 181.
 Pirenne, Henri, cited, 174, 202.
 Pitt, William, and income taxes, 608.
 Pittman, Key, and London silver agreement, 683, 684.
 Plato, early philosopher, 9; and moralist, 11.
 Plautus, early writer, 9.
 Plays, miracle and mystery, 109, 110.
 Plehn, Carl C., cited, 567.
 Pliny, the Elder, author, 9, 10; agriculture, 35, 38; gold in clothing, 46; perfumes, 53; timber supply, 77.
 Pliny, the Younger, writer, 9.
 Plowing, in ancient world, 34, 35, 81.
 Plumbing, in ancient world, 49, 59, 60.
 Plutarch, early biographer, 9.
 Poitiers, battle of, 141.
 Poland, 1500 to 1800, as viewed by travellers, 216, 217; peasants, 268; manufactures, 293, 294; commerce, 327; since 1800: agriculture, 397, 398; manufactures, 466, 467; tariff, 581; commerce, 646, 647.

- Poles, De la, rich merchants, 172, 198.
 Polhem, and Swedish factory, 415.
 Policy, agricultural, of various countries, 376-378.
Political Science Quarterly, cited, 402.
 Pollack, M. P., translator, 218.
 Pollard, A. F., author, 218.
 Polybius, early historian, 9.
 Pombal, and Portuguese manufactures, 287, 288; commerce, 316.
 Pompey, defeats pirates, 76.
 Poor relief, discussed, 216-218.
 Pope, Alexander, prose writer, 232.
 Popular Front, in France, 501, 502; in Spain, 530.
 Population, compounding of, 42, growth of, 352-356; shift of in England, 424, 425.
 Porter, R. K., quoted on Russia, 389, 390.
 Portland Vase, discussed, 52.
 Portugal, 1500 to 1800: peasants of, 258, manufactures, 287, 288, discoveries, 296, 297, commerce, 315, 316, since 1800 characteristics of people, 343, 344, farm workers, 389; agriculture, 402, 403; manufactures, 462; socialism, 529; tariff, 582, commerce, 641.
 Portus, defined, 174.
 Post, Wiley, and circling the world, 652.
 Pottery, manufacture of, 46-48; specialization in Greece, 58, 59; large-scale in Rome, 59, improvements in England, 289.
 Power, Eileen, translator, 116, 152, author, 152.
 Pratt, E. A., author, 566.
 Praxiteles, Greek sculptor, 56.
 Precious stones, in ancient world, 50.
 Preferential tariffs, English, 572, 573.
 Price, M. P., author, 467, 657.
 Prices, in ancient world, 16-18, in Middle Ages, 110, 150, 151; relation to transportation, 181; 1500 to 1800, for grain, 274; in various European countries since 1800, 487-493.
 Priestly, Joseph, and oxygen, 235.
 Primogeniture, and property rights, 263.
 Prince Henry the Navigator, of Portugal, 296, 297.
Proceedings of the Academy of Political Science, cited, 583.
 Progress, early, 4-6.
 Property, recognition of, 62, 63.
 Prothero, G. W., editor, 260, on weight of animals, 276.
 Proudhon, Pierre-Joseph, French socialist, 514, 515.
 Pugachev, and Russian peasant revolt, 270.
 Punt, Egyptian trade with, 71, 72.
 Pythagoras, and natural laws, 8.

Quarterly Review, quoted or cited on France, 408, 442; on English children, 468, 473, 474; on the tariff, 572, 573.
Queen Mary, English steamer, 558.
Quia Emptores, Statute of, 139, 140.
 Quotas, import, nature of, 582.

 Races, of Northwest Quadrant, 2.
 Racine, Jean Baptiste, dramatist, 233.
 Rack-renting, nature of, 386, 397.
 Radbertus, churchman and the Eucharist, 219.
 Radman, manorial officer, 81.
 Raiffeisen, Frederick, and agricultural banks, 369, 370.
 Raikes, Robert, and Sunday schools, 229.
 Railroads, development of, in the various countries, 544-553.
 Ranke, von Leopold, historian, 349.
 Raphael, Italian painter, 132.
 Rappard, W. E., author, 360.
 Ratzel, Frederick, quoted on African agriculture, 34.
 Reclamation, of land, in manorial system, 94; in Italy, 97; in England, 273; in Europe since 1800, 361, 362.
 Reeve, manorial officer, 82, 87.
 Regrating, defined, 161.
 Regrators, defined, 173.
 Religion, in ancient world, 10-12, in Middle Ages, 117-134; from 1500 to 1800, 219-228; since 1800, 344-346.
 Rembrandt, van Ryn, Dutch painter, 132.
 Renaissance, nature of, 131.
 Rents, in manorial system, 90, 91; for town shops, 171; in Spain, 252; of English lands, 274; rack, 386, 397.
 Reparations, problem of, 662-664.
 Resources, good utilization of, 403-405.
Review of Reviews, cited or quoted, 398, 452, 453, 505, 636, 638.
 Revisionism, defined, 515.
 Revolt, intellectual, 233-238.
 Revolts, peasant, in Flanders, 140; in

- France, 140-142; in England, 142-145, 262, 385; in Switzerland, 264; in Hungary, 265, 394; in Germany, 266, 267; in Russia, 270; in Rumania, 395.
- Revolts, slave, in Athens, 25; in Rome, 26.
- Revolution, Agricultural, beginnings of, 270-278; reclamation of land, 361, 362; improved machinery, 362-364; use of fertilizers, 364-366; education, 366-369; credit, 369-371; co-operation, 371-373; government services to agriculture, 373-376; agricultural policy, 376-378; enclosures, 378-381; size of farms, 381-383.
- Revolution, Commercial, expanding commercial world, 296-298; changes in economic organization, 298-300; rise and fall of the Fuggers, 300, 301; rise of banks and stock exchanges, 301-304; speculation, 304-306; money, 306-310; mercantilism, 310-312.
- Revolution, Industrial, early factories, 414, 415; beginnings in England, 415-417; nature of, 417-422; economic and social effects, 422-428; contributions of and beginnings in other countries, 428-430.
- Revolution, Political of 1789, effect on French land-holding, 272; and taxes, 613.
- Revolution, in transportation and communication, canals, 536-540; wagon roads, 540-544; rail transportation, 544-553; ocean transportation, 554-560; air transportation, 560-563; communication, 563-566.
- Revolutionary War, causes of, 324.
- Rex, Italian steamer, 558.
- Richard, Daniel Jean, and watches, 293.
- Richard I, of England, ransom of, 126; and Crusades, 128.
- Richard II, of England, and peasant revolt, 144, 145; and corn laws, 278.
- Richardson, H. G., author, 363.
- Richardson, J. H., author, 585.
- Richardson, Samuel, early novelist, 232.
- Richelieu, of France, and manufactures, 288; and commerce, 321.
- Rigby, Dr., on French peasants, 260.
- Rist, Charles, of France, and monetary problem, 682.
- Roads, early, 63, 164, 168, 169, 177; improvement of, 540-544.
- Robbers, early dangers from, 63, 76, 168, 169, 177.
- Robinson, Cyril E., cited, 613.
- Robinson, J. H., author, 218, 220, 238, 266.
- Rocket*, famous locomotive, 545.
- Roda, Roda, quoted on Portuguese, 344.
- Rodbertus, Karl, early socialist, 520.
- Rogers, Thorold, cited, 90, 150, 241, 271.
- Roman, F. W., author, 360.
- Rome, luxuries of, 7, 8; intellectual progress, 9, 10; religion, 11, 12; wages of free laborers, 14, 15, 17, 18; treatment of slaves, 25; manufactures, 59, 60; roads, 64; coinage, 67; commerce, 74-77.
- Roorbach, George B., cited, 583.
- Rooseboom, Matthuys P., cited, 628, 629.
- Roosevelt, Franklin D., and stabilization of currencies, 682, 683; gold devaluation, 683; balanced budgets, 683.
- Rosselli, Bruno, quoted on Albanian sales, 654.
- Rostovtzeff, M., cited, 7, 11, 12, 14, 15, 50, 55, 70, 71.
- Rotation of crops, 275.
- Rothschild, Baron, and Suez Canal, 539.
- Rousseau, Jean, and education, 231; an author, 237.
- Routes, in eastern trade, 189, 190.
- Rubber agreement, on production, 685.
- Rubens, Peter Paul, Flemish painter, 132.
- Ruhr, coal of, 440; seizure of, 663.
- Rumania, 1500 to 1800: peasants in, 255; commerce, 327; since 1800: agricultural conditions, 395, 396; manufactures, 461; commerce, 649.
- Russia, in Middle Ages: agriculture, 100, 101; social conditions, 111; commerce, 201; from 1500 to 1800: people of, 215, 216; peasants, 268-270; manufactures, 294, 295; commerce, 325-327; since 1800: exiled kulaks, 337; emigration, 359; agricultural policy, 376; peasants, 389-394; agriculture, 409-413; manufactures, 455-458; labor organizations, 504, 505; socialism, 525-527; canals, 537; roads, 541; railroads, 548-550; tariff, 579, 580; banking, 592; commerce, 630-632; internal trade, 654-656; condition during the Great Depression, 675, 677.
- Rutherford, Daniel, and nitrogen, 235.

- Saar, coal of, 440.
 Sadler, Michael, and factory reform, 469, 470.
 Sahure, Egyptian royal trader, 71.
 St. Augustine, author, 10; attitude toward commerce, 124.
 St. Clair, Labert, cited, 540, 542, 544, 553, 555, 556.
 St. George, Bank of, 185.
 St. Jerome, cited on trade, 124.
 St. Louis, of France, and commerce, 195.
 St. Paul, advice on treatment of slaves, 26, 27.
 St. Simon, cited on poor, 248; work of, 512.
 Salter, J. A., author, 566; quoted on trade, 583, 584.
 Salvemini, G., cited, 309, 401, 402.
 Salzman, L. F., cited, 165, 167.
 Santos-Dumont, Alberto, and dirigibles, 561.
 Saunders, Catherine, cited, 49.
 Savery, Thomas, and steam engines, 289.
 Savigny, von Fredrich Karl, jurist, 520.
 Scandinavian Monetary Union, 601.
 Scandinavians, in Middle Ages: agriculture, 100, manufactures, 166; boats, 180 commerce, 199-201; from 1500 to 1800: life, 253, peasants, 263-265; manufactures, 293; commerce, 324, 325; since 1800: social conditions, 337, 338; education, 348, 349 agriculture, 400, 401; manufactures, 463-465; commerce, 641-644.
 Schmoller, Gustav, author, 312.
 Schoenborn, Count, Hungarian landholder, 394.
 Scholasticism, nature of, 118, 119.
 Schushnigg, Kurt, Austrian dictator, 535.
 Science, progress of since 1500, 233-238, 349, 350.
 Scopos, Greek sculptor, 56.
 Scotland, education, 231; agrarian conditions, 386; oil shale, 434, banking, 597.
 Scott, Walter, novelist, 349.
 Scriven, G. P., quoted on Albania, 336.
 Sea-loan, nature of, 67.
 Seals, manufacture of, 50, 51.
 See, Henri E., author, 254, 278, 295, 331.
 Seebohm, F., cited, 85.
 Seeder, Sumerian, 36.
 Seed selection, in ancient world, 35, 36.
 Seignobos, Charles, author, 116.
 Selden Society, publications of, cited, 179.
 Selfridge, H. C., author, 202.
 Sellery, George C., author, 116.
 Semple, Ellen C., cited, 30, 31, 33, 34, 36, 41, 45, 50, 77, 78.
 Semple, Robert, quoted on Portuguese inn, 343.
 Seneca, Roman essayist, 9; condemns slavery, 21.
 Serfs, discussed, 90, 91; attitude of Church toward, 120; advance from slavery, 136-138; in Germany, 267, 268, 387; in Russia, 391-393.
 Serra, Antonio, author, 311.
 Serres, Oliver de, and scientific farming, 271.
 Servetus, Michael, execution of, 223.
 Servia, from 1500 to 1800: peasants, 255; commerce, 327, 328; since 1800: division of land, 394; manufactures, 461; commerce, 647, 648.
 Settled Land Acts, English, 382.
 Settlement Act, discussed, 246, 247.
 Shakespeare, William, dramatist, 231.
 Sharp, W. R., author, 467, 509, 535, 591, 615, 657.
 Sharpe, Gillet, factory child, 469, 470.
 Sheep, in ancient world, 40, 41; improvement in England, 276, 277.
 Sherill, Charles H., cited, 638.
 Sherlock, traveller quoted on French people, 210.
 Sherman, S. S., author, 685.
 Sholl, Anna M., quoted on Albania, 336.
 Shops, description of in Middle Ages, 171; in Russia, about 1900, 655.
 Shotwell, J. T., author, 685.
 Showalter, W. J., cited, 647.
 Sichart, Emma, author, 116.
 Siemens, Ernest Werner von, and electric cars, 552; and cables, 564.
 Siesey, Emmanuel Joseph, and assemblies, 257.
 Sigismund, Archduke, and the Fuggers, 300.
 Silesia, mines of, 291.
 Silk, early manufacture of, 46.
 Silver, early sources of, 49, 50; London agreement, 683, 684.
 Sinclair, Sir John, and agriculture, 276.
 Slavery, in the ancient world, 21-28; attitude of Church toward, 119, 120.

- in the Middle Ages, 135, 136; praedial, 137, 138; German, 138; slave trade since 1500, 229-241.
- Slavs, early agriculture of, 84.
- Small holdings acts, in England, 374, 383.
- Small, James, plow of, 362.
- Smeaton, John, and iron manufactures, 290, 419.
- Smith, Adam, and schools, 229; freedom of trade, 237; on labor unions, 243; land enclosures, 378; tariff, 570; quoted on corn laws, 571.
- Smith, Augustus, and enclosures, 380.
- Smith, of Deanston, and land reclamation, 361.
- Smith, Eudora, quoted on Germany, 541.
- Smith, J. R., cited, 372, 380, 538, 539.
- Smith, Jeremiah, and Hungarian finances, 639, 640.
- Smithsonian Institution, report of, cited, 54.
- Smuggling, in Spain, 317, 318.
- Smuts, General, on debts, 682.
- Social conditions, in ancient world: life of upper classes, 7, 8; education, 8-10; religion, 10-12; in the Middle Ages: Teutonic characteristics, 102-104; manorial life, 104-106; town life, 106-110; drawbacks to life, 110, 111; in backward regions, 111-113; life of the upper classes, 113-116; from 1500 to 1800: as described by contemporaries for various countries, 205-218; religion, 219-228; education, 228-238; since 1800: in various European countries as viewed by travellers, 335-344; religion, 344-346; education, 346-350. *See* labor and contemporaries.
- Social Democratic Party, in Germany, 521, 522, 531; in England, 524.
- Social Democratic unions, Germany, 502, 503.
- Social insurance, nature and growth of, 482-487.
- Socialism, nature and objects, 510, 511; early French socialists, 511-513; two mid-century French socialists, 513-515; later French socialists, 515-516; in French politics, 516, 517; Karl Marx, 517-520; growth in Germany, 520-522; Robert Owen, 522-524; growth in England, 524, 525; in Russia, 525-527; spread, 527-531; opposition to, 531-534.
- Societies, learned, 231; agricultural, 368, 369; of resistance in France, 500; friendly in France, 500.
- Socmen, on manor, 89, 94.
- Socrates, Greek moralist, 11.
- Soil, fertility of, 29, 30.
- Solohub, W. A., cited, 584.
- Solomon, as a horse trader, 61; on housework, 154.
- Solon, Athenian lawgiver, 16.
- Sophocles, plays of, 8.
- Southampton, Gild Merchant of, 175, 176.
- South Sea Company, abuses of, 305.
- Spa agreement, and German coal, 440.
- Spain, in the Middle Ages: agriculture, 97-99; manufactures, 166; commerce, 186; from 1500 to 1800: life in, 251, 252; peasants, 257, 258; manufactures, 287; discoveries, 297; commerce, 316-318; since 1800: people, 342, 343; land reclamation, 362; farm workers, 388, 389; agriculture, 402; manufactures, 462, 463; socialism, 529, 530; tariff, 582; commerce, 640, 641; market scene in Madrid, 653; revolutions, 661.
- Spartacus, slave leader, 26.
- Specialization, growth of in Paris, 146.
- Speculation, in eighteenth century, 304-306.
- Spedding, Rosamond F., quoted on French agriculture, 408.
- Speck, P. A., quoted on Estonia, 400.
- Speier, Diet of, 222.
- Spencer, Earl, and enclosures, 379.
- Spencer, Herbert, evolutionist, 350.
- Spices, longing for, 134.
- Spinoza, Baruch, theorist, 236.
- Splawn, W. M. W., author, 566.
- Sprague, Frank J., and electric cars, 552.
- Stalin, Joseph, and Russian peasants, 393; and manufactures, 458.
- Stamp, Sir Josiah, author, 615.
- Stanley, Alfred, and subways, 553.
- Stark, Sadie L., cited, 400.
- State church, disestablishment of, 344, 345.
- Statute of Frauds, 263.
- Stavisky, M., scandal of, 516.
- Steele, Richard, prose writer, 232.
- Steelyard, in London, 191, 192, 198.
- Stein, Gunther, quoted on Ruthenians, 341.
- Stein, liberates Prussian serfs, 387; and tariffs, 576.

- Stephen, of Hungary, favors western influences, 96, 97.
- Stephens, John, and the *Phoenix*, 555.
- Stephenson, George, and railroads, 545.
- Steward, manorial officer, 87; court duties, 89.
- Stewart, Charles, translator, 208, 209.
- Stimson, Secretary, and debts, 666.
- Stinnes, Hugo, German industrial leader, 450.
- Stockder, A. H., author, 467.
- Stocking, G. W., cited, 366.
- Stolypin, and Russian reforms, 376.
- Stone Age, and subdivisions, 4.
- Stone, Gilbert, author, 149, 238, 249, 254.
- Stooling, defined, 84.
- Storch, quoted on Russian commerce, 326.
- Strabo, early geographer, 9, quoted on the palm, 39.
- Strawn, Silas H., quoted on quotas, 584.
- Strikes, defined for agriculture, 84.
- Strikes, general in Rome, 16.
- Strips, scattering of on manor, 92, 93.
- Strogonovs, Russian merchants, 326.
- Subercaseaux Guillermo, cited, 592.
- Subinfeudation, defined, 139, 140.
- Submarines, 555, 559, 560.
- Sully, French minister, and agriculture, 271; commerce, 320, 321; roads, 540.
- Sumerians, early civilization, 6, seed er, 36, ovens, 43; pottery, 47; chariots, 54.
- Sumptuary legislation, examples of, 108, 112, 150, 214.
- Surtaxes, shipping, 568, 569, tariff, 579.
- Survey, cited, 367, 400, 454.
- Sweating, defined, 285; English legislation against, 478.
- Sweden, in Middle Ages agriculture, 100 manufactures in housework system, 153-155, commerce, 200, 201; from 1500 to 1800 life in, 253, peasants, 263; manufactures, 293; commerce, 324, since 1800 education, 348, 349, agrarian conditions, 388, 400, 401; manufactures, 464, 465, socialism, 527, tariff, 581; commerce, 643, 644.
- Swift, Jonathan, prose writer, 232.
- Swinburn, Henry, quoted on Italians, 213.
- Swindler, Mary H., author, 60.
- Swine, in ancient world, 40, 41.
- Switzerland, in Middle Ages: agriculture, 99, 100, social life, 112, 113; manufactures, 166; commerce, 199, from 1500 to 1800: religious troubles, 222, 223, education, 231; life, 252, 253, peasants, 264; agriculture, 272, 273, manufactures, 292, 293, commerce, 325; since 1800: Leggett's comment on life, 339, 340; agriculture, 403, 404; manufactures, 460, 461; labor laws, 480, socialism, 528, tariff, 581; banking, 600, commerce, 635, 636.
- Sydney, Philip, prose writer, 231.
- Symington, William, and steamboats, 555.
- Syndicalist unions, in Italy, 505, 506.
- Syndicate, German, 445.
- Syrian saddle, importance of, 71.
- Tacitus, Roman author, 9; cited on early Germans, 103, 138.
- Taff Vale Case, importance of, 498, 499.
- Taille, defined, 261.
- Taine, cited on poor relief, 248.
- Tariff commissions, work of, 569.
- Tariffs, town, 172, 173, on farm products, 373, 374, 375, various kinds defined, 568-570, England, 570-574; France, 574-576, Germany, 576-578, Italy, 578, 579, Russia, 579, 580; other countries, 580-582; other restrictions, 582-584, discussion at London Conference, 681.
- Tawney, R. H., editor or author, 101, 134, 160, 163, 164, 179, 244, 253, 278, 284, 290, 302, 379, 383, 497, 509, 570, 571.
- Taxes, various kinds in the different countries, 605-612 poll taxes, 607, 608, land taxes, 608, income taxes, 608, 609; business, 609, 610; sales tax, 610, inheritance, 610, 611; miscellaneous, 611, for war purposes, 613, 614.
- Taylor, A. E., quoted on Austria, 452, 453.
- Taylor, E. O., author, 116.
- Telegraph, development of, 563, 564.
- Telephone, development of, 564, 565.
- Television, beginnings of, 565.
- Telford, Thomas, and English roads, 540.
- Temples, in ancient world, construc-

- tion, 54-56; as banks, 68, 69; trade of, 70.
- Tenants, customary, 90.
- Terence, early writer, 9.
- Terraces, farming on in ancient world, 35.
- Tertullian, quoted on gain, 124.
- Tetzel, and abuse of indulgences, 221.
- Teutons, agriculture of, 81-84; characteristics of, 102-104.
- Textiles, in ancient world, 44-46.
- Thales, and eclipses, 8.
- Thatcher, O. J., cited, 191.
- Theodoric, and Italian agriculture, 97.
- Theodosius, and slavery, 136; and gilds, 157.
- Theophrastus, quoted on sowing, 39.
- Thessaly, resources of, 396.
- Thirty Years' War, and Hanseatic League, 192; losses, 226, 248; serfdom, 267, 268; Danish manufactures, 293.
- Thomas, S. G., and steel manufactures, 421.
- Thompson, J. W., cited, 98, 100, 107, 122, 134, 152, 202.
- Thompson, R. C., cited, 43, 47.
- Thorndike, Lynn, author, 238.
- Thornton, traveller quoted on Turks and Greeks, 335.
- Thorsteinsson, Thorsteinn, author, 657.
- Three-field system, 93.
- Thucydides, referred to, 8; cited on slaves, 25.
- Tin, in ancient world, 48, 49.
- Titian, Venetian painter, 132.
- Tod, Marcus N., cited, 18, 41.
- Toll, manorial fine, 91.
- Tolles, N. A., cited, 433.
- Tolls, abuses of, 177, 178; compared with tariffs, 562.
- Tolstoy, Russian novelist, 349.
- Tompkins, Benjamin, and cattle, 277.
- Tooth money, 255.
- Tordesillas, Treaty of, 297.
- Torricelli, Evangelista, and atmospheric pressure, 235.
- Tourist trade, importance of in Switzerland, 636.
- Tournaments, pride in, 114.
- Towns, life in during the Middle Ages, 106-110; rise of, 170, 171.
- Townshend, Lord, and crop rotation, 275.
- Toynbee, Arnold, cited, 417.
- Tractor, active partner, 182.
- Trade Union Congress, England, 500.
- Trajan, Column of, 57.
- Transit duties, 567, 568.
- Trans-Siberian Railroad, 548, 549.
- Transubstantiation, doctrine of, 219.
- Tresaguet, and French roads, 540.
- Trevithick, Richard, and locomotives, 544.
- Tribute, connection with early commerce, 62.
- Trollope, Frances, cited on Austrian and Hungarian peasants, 340.
- Trotsky, Leon, and socialism, 525.
- Trucking, abuses of, 424.
- Tull, Jethro, and scientific farming, 274, 275.
- Turgot, works of, 237; and gilds, 282; a Physiocrat, 570.
- Turkey, treatment of peasants, 256; characteristics of people, 335; education, 347; agricultural conditions, 397; planned production, 458; manufactures, 462; commerce, 652.
- Twelve Tables, Roman laws, 16; on interest, 74.
- Twiss, Travers, cited, 310, 311.
- Tyre, early slave market, 21; dyes of, 45.
- United States, immigration laws of, 360; on bimetallism, 589, 590; on war debts, 664-667; influence of Hawley-Smoot Tariff, 681; inflation policy, 683.
- Universities, established, 131.
- Unwin, George, author, 254, 295.
- Upper classes, life of in ancient world, 7, 8; in Middle Ages, 113-116.
- Urban II, preaches a crusade, 128.
- Usher, A. P., cited, 158, 167, 295, 415, 419, 421, 431.
- Usselinx, William, quoted on Swedish manufactures, 293.
- Utopia, quoted on enclosures, 261.
- Valgren, V. N., cited, 371.
- Valio, Finnish cooperative, 373.
- Vambery, Armenius, author, 266.
- Van Cleef, Eugene, author, 384.
- Van den Bosch, Governor, and Java, 628.
- Van Dyke, Anthony, Flemish painter, 132.
- Van Eycks, Dutch painters, 132.
- Varro, cited on seed selection, 35.
- Vasa, Gustavus, and Swedish agriculture, 263.

- Vauban, cited on French peasants, 258.
 Vegetables, in ancient world, 39.
 Velasquez, Diego, Spanish painter, 132.
 Venice, or Venetians, in *Crusades*, 128, 130, trade, 186-188, relative decline of, 268, 287, 313.
 Vergil, Roman poet, 9; quoted on agriculture, 37, 38; on cattle, 41; on weaving, 44; on iron weapons, 49.
 Vermuyden, Dutch engineer, 273.
 Verrazano, G. da, and explorations, 320.
 Versailles, Treaty of, 562, 625.
 Vesalius, Belgian scientist, 231.
 Vespasian, Roman emperor, fears labor-saving device, 17.
 Viallate, Achille, author, 585.
 Victual Brothers, pirates, 181.
 Villari, Linda, translator, 167.
 Villari, Pasquale, cited, 167.
 Villeins, manorial inhabitants, 90, 91.
 Vincent, J. M., cited, 112, 113.
Vindicta, defined, 27.
 Vinogradoff, Paul, cited, 86, 101.
 Virgarri, on manor, 90.
 Virgate, defined, 92.
 Vlad, the Impaler or Devil, of Rumania, 327.
 Vladimir, and Russian religious embassy, 111.
 Voltaire, F. M., author, 218; philosopher, 237.
 Wages, in ancient world, 17-19, in the Middle Ages: interference with in England, 143; amount, 148, 149; purchasing power, 150, 151, from 1500 to 1800 in England, 241, 242; in France, 212; in Russia, 245; in Spain, 245 since 1800 in England, 424; in various countries, 492-494.
 Wage-work, discussed, 155, 156.
 Walker, Williston, author, 227, 228.
Wall Street Journal, cited, 685.
 Wallace, A. R., evolutionist, 350.
 Walpole, cited on French peasants, 260.
 Walter the Penniless, and First Crusade, 128.
 Walton, Isaac, prose writer, 232.
 War, cost of discussed, 658-662.
 Ward, A. W., editor, 260.
 Ward, C. O., cited, 25, 28.
 Wareing, E. B. F., translator, 28, 11, 60.
 Wat the Tyler, English peasant leader, 144.
 Watt, James, and the steam engine, 289, 419.
 Waugh, Benjamin, quoted on oppression of children, 473.
 Weapons, in the ancient world, 53, 54.
 Webb, Beatrice, author, 509.
 Webb, Sidney, quoted on Russian labor, 503; author, 509.
 Weber, A. F., author, 360, 600.
 Weber, Max, cited, 67, 69, 78, 84, 85, 101, 198, 270, 295, 306, 312, 331, 431.
 Wedgwood, Josiah, English potter, 289.
 Week work, defined, 94; decline of, 94, 95.
 Well-being of labor: prices, 487-489, foods, 489-491; wages, 491-493; unemployment, 493, 494; insurance, 494; attitude toward women, 494, 495, housing reform, 495-497.
 Wergeld, among early Germans, 103.
 Wesley, Charles, work of, 225.
 Wesley, John, work of, 225.
 Westerfield, R. B., author, 589.
 Westminster, Statute of, 196.
 Weston, Richard, and turnips, 274.
 Westphalia, Treaty of, 226, 318.
 Wheat Pact, and world supplies, 684, 685.
 White, Horace, cited, 593.
 Whitefield, George, work of, 225.
 Whitley, councils, nature of, 525.
 Whitney, Eli, and cotton gin, 418.
 Whittington, Richard, rich merchant, 172, 198.
 Whittlesey, Charles R., cited, 605.
 Wickett, S. M., translator, 153, 167.
 Wiest, Edward, cited, 369.
 Wilds, Sophie, quoted on Hungarian market scene, 653.
 Wilkinson, John, and iron boats, 420.
 William I, of England, and census taking, 352.
 William Rufus, of England, and fairs, 180.
 Williams, H. S., cited, 4, 96, 100, 111, 128, 134, 293.
 Williams, M. O., quoted or cited, 336, 341, 466.
 Williamson, T. T., cited, 511.
 Willoughby, Hugh, and explorations, 322.
 Wilson, G. L., author, 566.
 Wilson, Herbert, translator, 278.
 Wilson, J. D., author, 360.
 Wine, importance in ancient world, 43, 44.
 Wireless, development of, 565.

- Wisby, importance of, 200.
- Witte, Count Sergius, and Russian economic development, 455.
- Wolfe, Humbert, author, 509.
- Wolff, Wilhelm, aids Marx, 519.
- Wollstonecraft, Mary, quoted on the Norwegians, 215.
- Women, in gild system, 162; in industry since 1800, 494.
- Wool, early manufactures, 44.
- World Economic Conference at London, work of, 680-685.
- Worms, Diet of, 221.
- Wright, Orville, and aeroplanes, 561, 562.
- Wright, Wilbur, and aeroplanes, 561, 562.
- Writing, early development of, 3, 4.
- Wyclif, John, and slavery, 136; and peasant revolt, 142, 143; and Church, 220.
- Xenophon, referred to, 8; quoted on Armenians, 31; cited on drink, 44.
- Yale Review*, quoted on trade, 583, 584.
- Yardlings, on manor, 90.
- Ybarra, T. R., quoted on Albania, 336.
- Yields, crop, in ancient world, 38; under manorial system, 93; in England, 274; in southern Europe since 1800, 401; in Holland, 405.
- Yonge, C. D., translator, 196.
- Young, Arthur, cited on wages, 242; quoted on French peasants, 259, 260; cited on land ownership in France, 272; writings of, 276; cited on value of English stock, 276; quoted on English enclosures, 379; boasts about English inventors, 428.
- Young Plan, and reparations, 663, 665.
- Yugoslavia, land division in, 394; manufactures, 461; commerce, 648, 649; Zagreb market scene, 654.
- Zamora, Niceto Alcala, and Spanish government, 529.
- Zanneiken, Clais, peasant leader in Flanders, 140.
- Zeiss, Carl, German optician, 449.
- Zeno, early philosopher, 9.
- Zepplin, Count Ferdinand von, and dirigibles, 561.
- Zeydel, E. H., translator, 254, 278, 295, 331.
- Zimmern, Helen, author, 202.
- Zollverein, German customs union, 576, 577.
- Zoroaster, early religious leader, 10, 11.
- Zwingle, Ulrich, and the Swiss reformation, 222.